MDX-M690

SERVICE MANUAL

AEP Model
UK Model

Ver 1.0 2001.03

US and foreign patents licensed from Dolby Laboratories.

Model Name Using Similar Mechanism	MDX-CA680
Base Mechanism Type	MG-164MA-138
Optical Pick-up Name	KMS-241C

SPECIFICATIONS

MD Player section

Signal-to-noise ratio	90 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	87.5 – 108.0 MHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	66 dB (stereo), 72 dB (mono)
Harmonic distortion at 1 kHz	0.6 % (stereo), 0.3 % (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

MW/LW

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 279 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW: 30 µV LW: 40 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	52 W × 4 (at 4 ohms)

General

Outputs	Audio outputs (front/rear) Subwoofer output (mono) Power aerial relay control lead Power amplifier control lead
Inputs	Telephone ATT control lead Illumination control lead BUS control input connector BUS audio input connector Remote controller input connector Aerial input connector
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Loudness	+8 dB at 100 Hz +2 dB at 10 kHz
Power requirements	12 V DC car battery (negative earth)
Dimensions	Approx. 178 × 50 × 182 mm (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 160 mm (w/h/d)
Mass	Approx. 1.5 kg
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1) Card remote commander RM-X111

Note

This unit cannot be connected to a digital preamplifier or an equalizer.

Design and specifications are subject to change without notice.

FM/MW/LW MINI DISC PLAYER

9-870-294-11
2001C0500-1
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Sony Corporation
Audio Entertainment Group
General Engineering Dept.

SONY®

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NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

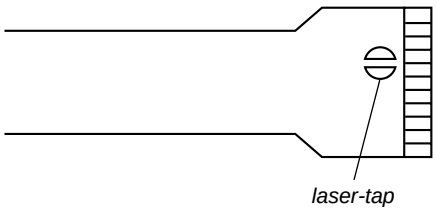
The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

Never look into the laser diode emission from right avove when checking it for adustment. It is feared that you will lose your sight.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK (KMS-241C).

The laser diode in the optical pick-up block may suffer electrostatic break-down easily. When handling it, perform soldering bridge to the laser-tap on the flexible board. Also perform measures against electrostatic break-down sufficiently before the operation. The flexible board is easily damaged and should be handled with care.



OPTICAL PICK-UP FLEXIBLE BOARD

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

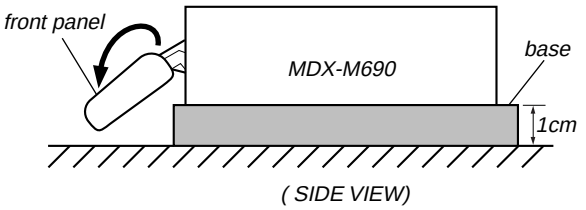
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
SERVICING NOTES

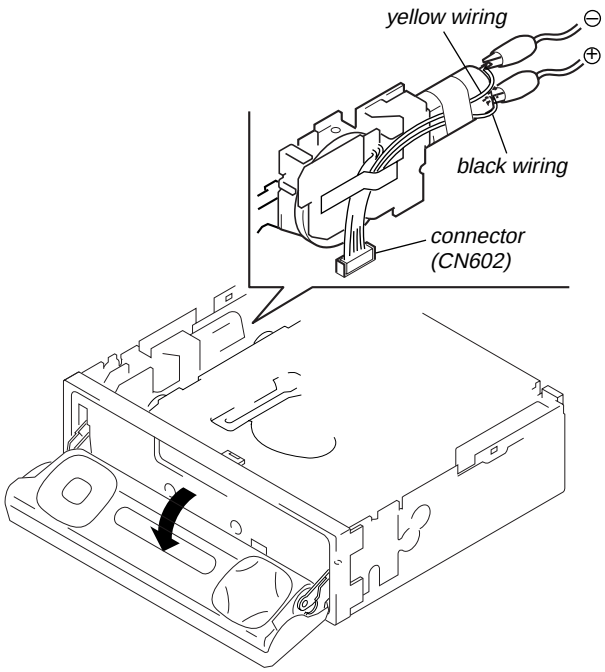
PRECAUTION ON OPEN/CLOSE FRONT PANEL

The front panel opens to the bottom of main unit.
In performing the repair, place the main unit on the base having the height exceeding 1 cm.



Open the front panel by supplying the power through the following steps:

1. Disconnect the motor connector (CN602) from main board.
2. Supply the power to the motor.
   Voltage : 9 V
   Yellow wiring : MOTOR –
   Black wiring : MOTOR +



DETACHING THE DISPLAY PANEL IN THE TEST MODE

In the normal mode, after pressing the OPEN key for two seconds to set the front panel in detaching position and detaching the display panel is complete, the front panel closes automatically.
But in the test mode, the front panel opens automatically. (refer to page 20 for test mode)

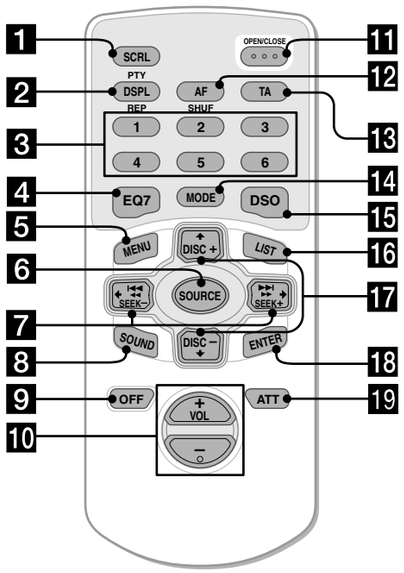
SECTION 2
GENERAL

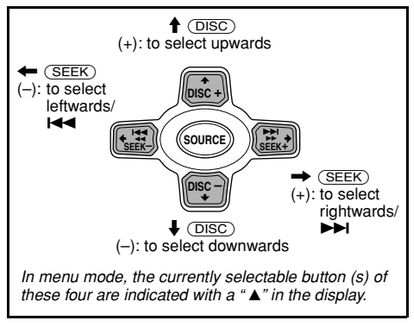
This section is extracted from instruction manual.

Location of controls

Card remote commander RM-X111

Refer to the pages listed for details.
CD/MD: During Playback RADIO: During radio reception MENU: During menu mode





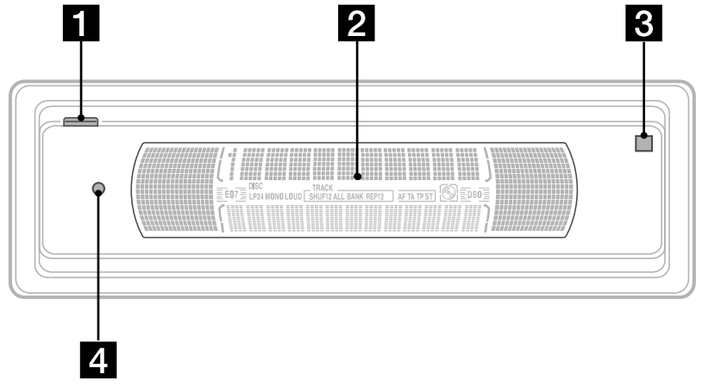
In menu mode, the currently selectable button (s) of these four are indicated with a "▲" in the display.

Note
If the unit is turned off by pressing (OFF) for 2 seconds, the unit cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

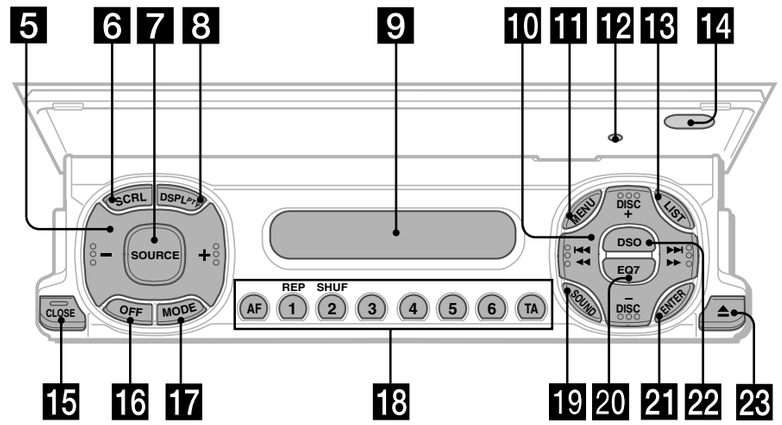
Tip
Refer to "Replacing the lithium battery" for details on how to replace the batteries (page 36).

1 SCRL (scroll) button 12
2 DSPL/PTY (display mode change/ programme type) button 12, 13, 17, 20, 25, 35
3 Number buttons
CD/MD
① **REP** 12
② **SHUF** 12
RADIO 15, 16, 18, 19, 22, 24
4 EQ7 button 26
5 MENU button 10, 13, 14, 15, 19, 21, 23, 25, 26, 27, 28, 30, 31, 33, 34, 35
6 SOURCE (Power on/Radio/CD/MD) button 10, 11, 13, 15, 16, 19, 22, 26, 27, 29, 30, 31, 33, 35
7 ⬅/➡ SEEK +/– buttons 10, 28, 29, 30, 31
CD/MD 11
RADIO 16, 18, 22
MENU 10, 13, 14, 15, 21, 23, 25, 26, 27, 28, 30, 31, 33, 34, 35
8 SOUND button 28, 29, 30, 31
9 OFF (Stop/Power off) button 11, 35
10 VOL +/– buttons 19
11 OPEN/CLOSE button 11, 37
12 AF button 18, 19
13 TA button 19
14 MODE button
CD/MD 11, 13
RADIO 15, 16, 19, 22
15 DSO button 27
16 LIST button
CD/MD 13, 14
RADIO 17, 24
17 ⬆/⬇ DISC +/– buttons
CD/MD 11, 14
RADIO 16, 17, 20, 22, 23, 24, 25
MENU 10, 13, 14, 15, 19, 21, 23, 25, 26, 27, 28, 30, 31, 33, 34, 35
18 ENTER button
CD/MD 14
RADIO 17, 20, 23, 24, 25
MENU 10, 13, 14, 15, 19, 21, 23, 25, 26, 27, 30, 31, 33, 34, 35
19 ATT button 33

Main display panel



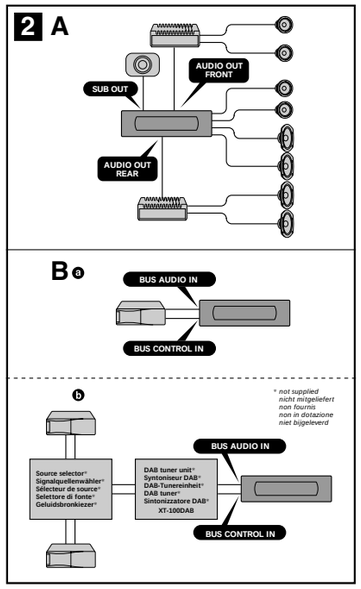
Operation side

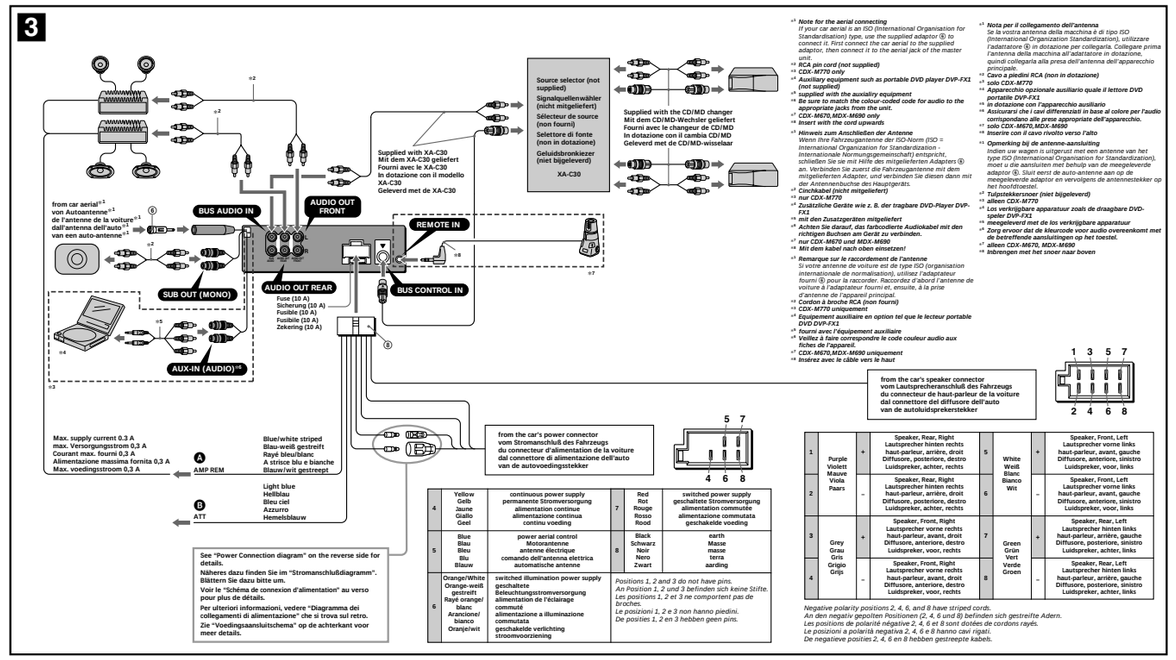


The corresponding buttons of the unit control the same functions as those on the card remote commander.

1 OPEN button 9, 11, 37
2 Main display window
3 14 Receptor for the card remote commander
4 12 Reset button 9
5 Volume adjust buttons
6 SCRL (scroll) button
7 SOURCE button
8 DSPL/PTY (display mode change/ programme type) button
9 Sub display window
10 DISC +/– (cursor up/down) buttons SEEK –/+ (cursor left/right) buttons
11 MENU button
13 LIST button
15 CLOSE (front panel close) button 9, 11
16 OFF (Stop/Power off) button*
17 MODE button
18 Number buttons
19 SOUND button
20 EQ7 button
21 ENTER button
22 DSO button
23 ⏏ (eject) button 11

MDX-M690





1 Note for the aerial connecting
If your car aerial is an ISO (International Organisation for Standardization) type, use the supplied adaptor Ⓐ to connect it. First connect the car aerial to the supplied adaptor, then connect it to the aerial jack of the master unit.
2 RCA pin cord (not supplied)
3 CDX-M770 only
4 Auxiliary equipment such as portable DVD player DVP-FX1 (not supplied)
5 supplied with the auxiliary equipment
6 Be sure to match the colour-coded code for audio to the appropriate jacks from the unit.
7 CDX-M670,MDX-M690 only
8 Insert with the cord upwards

1 Hinweis zum Anschließen der Antenne
Wenn Ihre Fahrzeugantenne der ISO-Norm (ISO = International Organization for Standardization - Internationale Normungsgemeinschaft) entspricht, schließen Sie sie mit Hilfe des mitgelieferten Adapters Ⓐ an. Verbinden Sie zuerst die Fahrzeugantenne mit dem mitgelieferten Adapter, und verbinden Sie diesen dann mit der Antennenbuchse des Hauptgeräts.
2 Cinchkabel (nicht mitgeliefert)
3 nur CDX-M770
4 Zusätzliche Geräte wie z. B. der tragbare DVD-Player DVP-FX1
5 mit den Zusatzgeräten mitgeliefert
6 Achten Sie darauf, das farbcodierte Audiokabel mit den richtigen Buchsen am Gerät zu verbinden.
7 nur CDX-M670 und MDX-M690
8 Mit dem kabel nach oben einsetzen!

1 Remarque sur le raccordement de l'antenne
Si votre antenne de voiture est de type ISO (organisation internationale de normalisation), utilisez l'adaptateur fourni Ⓐ pour la raccorder. Raccordez d'abord l'antenne de voiture à l'adaptateur fourni et, ensuite, à la prise d'antenne de l'appareil principal.
2 Cordon à broche RCA (non fourni)
3 CDX-M770 uniquement
4 Équipement auxiliaire en option tel que le lecteur portable DVD DVP-FX1
5 fourni avec l'équipement auxiliaire
6 Veillez à faire correspondre le code couleur audio aux fiches de l'appareil.
7 CDX-M670,MDX-M690 uniquement
8 Insérez avec le câble vers le haut

1 Nota per il collegamento dell'antenna
Se la vostra antenna della macchina è di tipo ISO (International Organization Standardization), utilizzare l'adattatore Ⓐ in dotazione per collegarla. Collegare prima l'antenna della macchina all'adattatore in dotazione, quindi collegarla alla presa dell'antenna dell'apparecchio principale.
2 Cavo a piedini RCA (non in dotazione)
3 solo CDX-M770
4 Apparecchio opzionale ausiliario quale il lettore DVD portatile DVP-FX1
5 in dotazione con l'apparecchio ausiliario
6 Assicurarsi che i cavi differenziati in base al colore per l'audio corrispondano alle prese appropriate dell'apparecchio.
7 solo CDX-M670,MDX-M690
8 Inserire con il cavo rivolto verso l'alto

1 Opmerking bij de antenne-aansluiting
Indien uw wagen is uitgerust met een antenne van het type ISO (International Organisation for Standardization), moet u die aansluiten met behulp van de meegeleverde adaptor Ⓐ. Sluit eerst de auto-antenne aan op de meegeleverde adaptor en vervolgens de antennestekker op het hoofdtoestel.
2 Tulpstekkersnoer (niet bijgeleverd)
3 alleen CDX-M770
4 Los verkrijgbare apparatuur zoals de draagbare DVD-speler DVP-FX1
5 meegeleverd met de los verkrijgbare apparatuur
6 Zorg ervoor dat de kleurcode voor audio overeenkomt met de betreffende aansluitingen op het toestel.
7 alleen CDX-M670, MDX-M690
8 Inbrengen met het snoer naar boven

1 3 5 7
2 4 6 8

1	Purple / Violett / Mauve / Viola / Paars	+	Speaker, Rear, Right / Lautsprecher hinten rechts / haut-parleur, arrière, droit / Diffusore, posteriore, destro / Luidspreker, achter, rechts	5	White / Weiß / Blanc / Bianco / Wit	+	Speaker, Front, Left / Lautsprecher vorne links / haut-parleur, avant, gauche / Diffusore, anteriore, sinistro / Luidspreker, voor, links
2		-	Speaker, Rear, Right / Lautsprecher hinten rechts / haut-parleur, arrière, droit / Diffusore, posteriore, destro / Luidspreker, achter, rechts	6		-	Speaker, Front, Left / Lautsprecher vorne links / haut-parleur, avant, gauche / Diffusore, anteriore, sinistro / Luidspreker, voor, links
3	Grey / Grau / Gris / Grigio / Grijs	+	Speaker, Front, Right / Lautsprecher vorne rechts / haut-parleur, avant, droit / Diffusore, anteriore, destro / Luidspreker, voor, rechts	7	Green / Grün / Vert / Verde / Groen	+	Speaker, Rear, Left / Lautsprecher hinten links / haut-parleur, arrière, gauche / Diffusore, posteriore, sinistro / Luidspreker, achter, links
4		-	Speaker, Front, Right / Lautsprecher vorne rechts / haut-parleur, avant, droit / Diffusore, anteriore, destro / Luidspreker, voor, rechts	8		-	Speaker, Rear, Left / Lautsprecher hinten links / haut-parleur, arrière, gauche / Diffusore, posteriore, sinistro / Luidspreker, achter, links

Negative polarity positions 2, 4, 6, and 8 have striped cords.
An den negativ gepolten Positionen (2, 4, 6 und 8) befinden sich gestreifte Adern.
Les positions de polarité négative 2, 4, 6 et 8 sont dotées de cordons rayés.
Le posizioni a polarità negativa 2, 4, 6 e 8 hanno cavi rigati.
De negatieve posities 2, 4, 6 en 8 hebben gestreepte kabels.

4	Yellow / Gelb / Jaune / Giallo / Geel	continuous power supply / permanente Stromversorgung / alimentation continue / alimentazione continua / continu voeding	
5	Blue / Blau / Bleu / Blu / Blauw	power aerial control / Motorantenne / antenne électrique / comando dell'antenna elettrica / automatische antenne	
6	Orange/White / Orange-weiß gestreift / Rayé orange/blanc / Arancione/bianco / Oranje/wit	switched illumination power supply / geschaltete Beleuchtungsstromversorgung / alimentation de l'éclairage commutée / alimentazione a illuminazione commutata / geschakelde verlichting / stroomvoorziening	
7	Red / Rot / Rouge / Rosso / Rood	switched power supply / geschaltete Stromversorgung / alimentation commutée / alimentazione commutata / geschakelde voeding	
8	Black / Schwarz / Noir / Nero / Zwart	earth / Masse / masse / terra / aarding	

Positions 1, 2 and 3 do not have pins.
An Position 1, 2 und 3 befinden sich keine Stifte.
Les positions 1, 2 et 3 ne comportent pas de broches.
Le posizioni 1, 2 e 3 non hanno piedini.
De posities 1, 2 en 3 hebben geen pins.

Cautions

- This unit is designed for negative earth 12 V DC operation only.
- Do not get the wires under a screw, or caught in moving parts (e.g. seat railing).
- Before making connections, turn the car ignition off to avoid short circuits.
- Connect the power connecting cord Ⓔ to the unit and speakers before connecting it to the auxiliary power connector.
- **Run all earth wires to a common earth point.**
- Be sure to insulate any loose unconnected wires with electrical tape for safety.

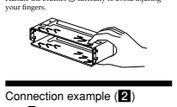
Notes on the power supply cord (yellow)

- When connecting this unit in combination with other stereo components, the connected car circuit's rating must be higher than the sum of each component's fuse.
- When no car circuits are rated high enough, connect the unit directly to the battery.

Parts list (1)

The numbers in the list are keyed to those in the instructions.
For the use of release key Ⓖ, see the supplied operating instructions.

Caution
Handle the bracket ① carefully to avoid injuring your fingers.



Connection example (2)

Notes (2-A)
- *Be sure to connect the earth cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

Tip (2-a, b)
For connecting two or more CD/MD changers, the source selector XA-C30 (optional) is necessary.

Connection diagram (3)

A To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.

B To the interface cable of a car telephone

Warning
If you have a power aerial without a relay box, connecting this unit with the supplied power connecting cord Ⓔ may damage the aerial.

Notes on the control leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the AF (Alternative Frequency), TA (Traffic Announcement) function.*
- *When your car has built-in FM/MW/LW aerial in the rear/side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial without a relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition switch is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (-) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker wires installed in your car if the unit shares a common negative (-) lead for the right and left speakers.*
- *Do not connect the unit's speaker cords to each other.*

Vorsicht

- Dieses Gerät ist ausschließlich für den Betrieb bei 12 V Gleichstrom (negative Erdung) bestimmt.
- Achten Sie darauf, daß die Kabel nicht unter einer Schraube oder zwischen beweglichen Teilen wie z. B. in einer Sitzschiene eingeklemmt werden.
- Schalten Sie, bevor Sie irgendwelche Anschlüsse vornehmen, die Zündung des Fahrzeugs aus, um Kurzschlüsse zu vermeiden.
- Verbinden Sie das Stromversorgungskabel Ⓔ mit dem Gerät und den Lautsprechern, bevor Sie es mit dem Hilfsstromanschluß verbinden.
- **Schließen Sie alle Erdungskabel an einen gemeinsamen Massepunkt an.**
- Aus Sicherheitsgründen müssen alle losen, nicht angeschlossenen Drähte mit Isolierband abisoliert werden.

Hinweise zum Stromversorgungskabel (gelb)

- Wenn Sie dieses Gerät zusammen mit anderen Stereokomponenten anschließen, muß der Autostromkreis, an den die Geräte angeschlossen sind, eine höhere Leistung aufweisen als die Summe der Sicherungen der einzelnen Komponenten.
- Wenn kein Autostromkreis eine so hohe Leistung aufweist, schließen Sie das Gerät direkt an die Batterie an.

Teileliste (1)

Die Nummern in der Liste sind dieselben wie im Erläuterungstext.
Wie Sie den Löseschlüssel Ⓖ verwenden, schlagen Sie bitte in der mitgelieferten Bedienungsanleitung nach.

Vorsicht
Seien Sie beim Umgang mit der Halterung ① vorsichtig, damit Sie sich nicht die Hände verletzen.

Anschlu beispiel (2)

Hinweise (2-A)
- *Schließen Sie unbedingt zuerst das Massekabel an, bevor Sie den Verstärker anschließen.*
- *Wenn Sie einen gesondert erhältlichen Endverstärker anschließen und den integrierten Verstärker nicht benutzen, wird der Signalton deaktiviert.*

Tip (2-a, b)
Zum Anschließen von zwei oder mehr CD/MD-Wechslern wird der gesondert erhältliche Signalquellenwähler XA-C30 benötigt.

Anschlu diagramm (3)

A An AMP REMOTE IN des gesondert erhältlichen Endverstärkers
Dieser Anschluß ist ausschließlich für Verstärker gedacht. Schließen Sie nichts anderes daran an. Andernfalls kann das Gerät beschädigt werden.

B An Schnittstellenkabel eines Autotelefons

Warnung
Wenn Sie eine Motorantenne ohne Relaiskästchen verwenden, kann durch Anschließen dieses Geräts mit dem mitgelieferten Stromversorgungskabel Ⓔ die Antenne beschädigt werden.

Hinweise zu den Steuerleitungen
- *Die Motorantennen-Steuerleitung (blau) liefert + 12 V Gleichstrom, wenn Sie den Tuner einschalten oder die AF- (Alternativfrequenzsuche) oder die TA-Funktion (Verkehrsdurchsagen) aktivieren.*
- *Wenn das Fahrzeug mit einer in der Heck-/Seitenfensterscheibe integrierten FM (UKW)/MW/LW-Antenne ausgestattet ist, schließen Sie die Motorantennen-Steuerleitung (blau) oder die Zubehörstromversorgungsleitung (rot) an den Stromversorgungsanschluß des vorhandenen Antennenverstärkers an. Näheres dazu erfahren Sie bei Ihrem Händler.*
- *Es kann nur eine Motorantenne mit Relaiskästchen angeschlossen werden.*

Stromversorgung des Speichers
Wenn das gelbe Stromversorgungskabel angeschlossen ist, wird der Speicher stets (auch bei ausgeschalteter Zündung) mit Strom versorgt.

Hinweise zum Lautsprecheranschluß
- *Schalten Sie das Gerät aus, bevor Sie die Lautsprecher anschließen.*
- *Verwenden Sie Lautsprecher mit einer Impedanz zwischen 4 und 8 Ohm und ausreichender Belastbarkeit. Ansonsten können die Lautsprecher beschädigt werden.*
- *Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Wagenchassis, und verbinden Sie auch nicht die Anschlüsse des rechten mit denen des linken Lautsprechers.*
- *Verbinden Sie die Masseleitung dieses Geräts nicht mit dem negativen (-) Lautsprecheranschluß.*
- *Versuchen Sie nicht, Lautsprecher parallel anzuschließen.*
- *An die Lautsprecheranschlüsse dieses Geräts dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keine Aktivlautsprecher (Lautsprecher mit eingebauten Verstärkern) an, da diese somit beschädigt werden können.*
- *Um Fehlfunktionen zu vermeiden, verwenden Sie nicht die im Fahrzeug installierten, integrierten Lautsprecherleitungen, wenn am Ende eine gemeinsame negative (-) Leitung für den rechten und den linken Lautsprecher verwendet wird.*
- *Verbinden Sie nicht die Lautsprecherkabel des Geräts miteinander.*

Pr cautions

- Cet appareil est conçu pour fonctionner sur courant continu de 12 V avec masse négative.
- Évitez de fixer des vis sur les câbles ou de coincer ceux-ci dans des pièces mobiles (par exemple, armature de siège).
- Avant d'effectuer des raccordements, éteignez le moteur pour éviter les courts-circuits.
- Branchez le cordon d'alimention Ⓔ sur l'appareil et les haut-parleurs avant de le brancher sur le connecteur d'alimentation auxiliaire.
- **Rassemblez tous les fils de terre en un point de masse commun.**
- Veillez à isoler avec du chatterton tout fil lâche non raccordé.

Remarques sur le cordon d'alimentation (jaune)

- Lorsque cet appareil est raccordé à d'autres éléments stéréo, la valeur nominale des circuits de la voiture raccordée doit être supérieure à la somme des fusibles de chaque élément.
- Si aucun circuit de la voiture n'est assez puissant, raccordez directement l'appareil à la batterie.

Liste des composants (1)

Les numéros de l'illustration correspondent à ceux des instructions.
Pour l'utilisation de la clé de déblocage Ⓖ, reportez-vous au mode d'emploi.

Attention
Manipulez précautionneusement le support ① pour éviter de vous blesser aux doigts.

Exemple de raccordement (2)

Remarques (2-A)
- *Raccordez d'abord le fil de masse avant de raccorder l'amplificateur.*
- *Si vous raccordez un amplificateur de puissance indépendant et que vous n'utilisez pas l'amplificateur intégré, le bip sonore est désactivé.*

Conseil (2-a, b)
Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C30 (en option) est indispensable.

Sch ma de raccordement (3)

A Au niveau du AMP REMOTE IN d'un amplificateur de puissance facultatif
Ce raccordement existe seulement pour les amplificateurs. Le raccordement à tout autre système peut endommager l'appareil.

B Vers le cordon de liaison d'un téléphone de voiture

Avertissement
Si vous disposez d'une antenne électrique sans boîtier de relais, le branchement de cet appareil au moyen du cordon d'alimentation fourni Ⓔ risque d'endommager l'antenne.

Remarques sur les fils de contrôle
- *Le fil de commande (bleu) de l'antenne électrique assure une alimentation de +12 V CC lorsque vous mettez le syntoniseur sous tension ou lorsque vous activez la fonction AF (fréquence secondaire) ou TA (informations routières).*
- *Lorsque votre voiture est équipée d'une antenne FM/MW/LW intégrée dans la vitre arrière/latérale, raccordez la sortie de commande de l'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) au bornier de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre revendeur.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

Raccordement pour la conservation de la mémoire
Lorsque le fil d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité de manipulation adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de masse de cet appareil à la borne négative (-) de l'enceinte.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les fils des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un fil négatif commun (-) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Attenzione

- Questo apparecchio è stato progettato per l'uso solo a 12 V CC con massa negativa.
- Evitare che i cavi rimangano bloccati da una vite o incastrati nelle parti mobili (ad esempio nelle guide scorrevoli dei sedili).
- Prima di effettuare i collegamenti, spegnere il motore dell'automobile onde evitare di causare cortocircuiti.
- Collegare il cavo di collegamento dell'alimentazione Ⓔ all'apparecchio e ai diffusori prima di collegarlo al connettore di alimentazione ausiliare.
- **Portare tutti i cavi di massa a un punto di massa comune.**
- Per sicurezza, assicurarsi di isolare qualsiasi cavo non collegato mediante apposito nastro.

Note sul cavo di alimentazione (giallo)

- Se questo apparecchio viene collegato con altri componenti stereo, la potenza nominale dei circuiti dell'automobile deve essere superiore a quella prodotta dalla somma dei fusibili di ciascun componente.
- Se la potenza nominale dei circuiti dell'automobile non è sufficiente, collegare l'apparecchio direttamente alla batteria.

Elenco dei componenti (1)

I numeri nella lista corrispondono a quelli riportati nelle istruzioni.
Per informazioni sull'utilizzo del tasto di rilascio Ⓖ, vedere le istruzioni per l'uso in dotazione.

Attenzione
Maneggiare la staffa ① con cautela per evitare di ferirsi le mani.

Esempi di collegamento (2)

Note (2-A)
- *Assicurarsi di collegare il cavo di terra prima di collegare l'apparecchio all'amplificatore.*
- *Se si collega un amplificatore di potenza opzionale e non si utilizza l'amplificatore incorporato, il segnale acustico verrà disattivato.*

Suggerimento (2-a, b)
Per collegare due o più cambia CD/MD, si deve utilizzare il selettore di fonte XA-C30 (opzionale).

Schema di collegamento (3)

A A AMP REMOTE IN di un amplificatore di potenza opzionale
Questo collegamento è riservato esclusivamente agli amplificatori. Non collegare un tipo di sistema diverso onde evitare di causare danni all'apparecchio.

B Al cavo interfaccia di un telefono per auto

Avvertenza
Quando si collega l'apparecchio con il cavo di alimentazione in dotazione Ⓔ, si potrebbe danneggiare l'antenna elettrica se questa non ha la scatola di relè.

Note sui cavi di controllo
- *Il cavo di controllo dell'antenna elettrica (blu) fornisce corrente continua +12 V CC quando si accende il sintonizzatore o quando si attiva la funzione AF (frequenza alternativa) o TA (notiziario sul traffico).*
- *Se l'automobile è dotata di antenna FM/MW/LW incorporata nel vetro posteriore/laterale, collegare il cavo (blu) di controllo dell'antenna elettrica o il cavo (rosso) di ingresso dell'alimentazione opzionale al terminale di alimentazione del preamplificatore dell'antenna esistente. Per ulteriori informazioni, consultare il proprio fornitore.*
- *Non è possibile usare un'antenna elettrica senza scatola a relè con questo apparecchio.*

Collegamento per la conservazione della memoria
Quando il cavo di ingresso alimentazione giallo è collegato, viene sempre fornita alimentazione al circuito di memoria anche quando la chiavetta a accensione è spenta.

Note sul collegamento dei diffusori
- *Prima di collegare i diffusori spegnere l'apparecchio.*
- *Usare diffusori di impedenza compresa tra 4 e 8 ohm e con capacità di potenza adeguata, altrimenti i diffusori potrebbero venir danneggiati.*
- *Non collegare i terminali del sistema diffusori al telaio dell'auto e non collegare i terminali del diffusore destro a quelli del diffusore sinistro.*
- *Non collegare il cavo di terra di questo apparecchio al terminale negativo (-) del diffusore.*
- *Non collegare i diffusori in parallelo.*
- *Non collegare alcun diffusore attivo (con amplificatore incorporato) ai terminali dei diffusori dell'apparecchio perché si potrebbero danneggiare i diffusori attivi. Assicurarsi di collegare diffusori passivi a questi terminali.*
- *Per evitare problemi di funzionamento, non utilizzare i cavi dei diffusori incorporati installati nell'automobile se il terminale dell'apparecchio condivide un cavo comune negativo (-) per i diffusori destro e sinistro.*
- *Non collegare fra loro i cavi dei diffusori dell'apparecchio.*

Let op!

- Dit apparaat is ontworpen voor gebruik op gelijkstroom van een 12 Volts auto-accu, negatief geaard.
- Zorg ervoor dat de draden niet onder een schroef of tussen bewegende onderdelen (b.v. zetelrail) terechtkomen.
- Alvorens aansluitingen te verrichten moet u het contact afzetten om kortsluiting te voorkomen.
- Sluit het netsnoer Ⓔ aan op het toestel en de luidsprekers voordat u het op de hulpvoedingsaansluiting aansluit.
- **Sluit alle aarddraden op een gemeenschappelijk aardpunt aan.**
- Voorzie niet aangesloten draden om veiligheidsredenen altijd van isolatietape.

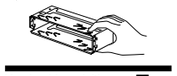
Opmerkingen bij de voedingskabel (geel)

- Wanneer u dit toestel aansluit samen met andere componenten, moet het vermogen van de aangesloten autostroomkring groter zijn dan de som van de zekeringen van elke component afzonderlijk.
- Wanneer het vermogen ontoereikend is, sluit u het toestel rechtstreeks aansluiten op de batterij.

Onderdelenlijst (1)

De nummers in de afbeelding verwijzen naar die in de montage-aanwijzingen.
Raadpleeg de meegeleverde gebruiksaanwijzing om de speciale sleutel te bedienen Ⓖ.

Voorzichtig
Houd de beugel ① voorzichtig vast zodat u uw vingers niet verwondt.



Voorbeeldaansluitingen (2)

Opmerkingen (2-A)
- *Sluit eerst de massakabel aan alvorens de versterker aan te sluiten.*
- *Als u een los verkrijgbare vermogensversterker aansluit en de ingebouwde versterker niet gebruikt, is die pieptoon uitgeschakeld.*

Tip (2-a, b)
Om twee of meer CD/MD-wisselaars aan te sluiten, hebt u de geluidsbronkiezer XA-C30 (optioneel) nodig.

Aansluitschema (3)

A Naar AMP REMOTE IN van een los verkrijgbare vermogensversterker
Deze aansluiting is alleen bedoeld voor versterkers. Door een ander systeem aan te sluiten kan het toestel worden beschadigd.

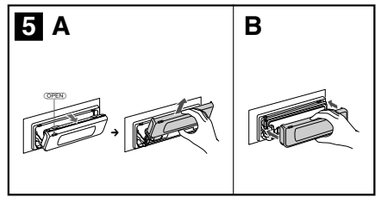
B Naar het interface-snoer van een autotelefoon

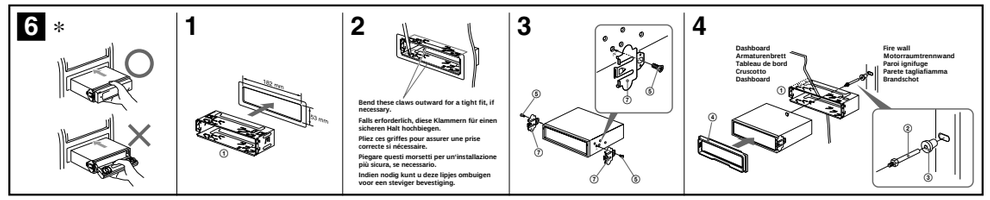
Opgelet
Indien u een elektrische antenne heeft zonder relaiskast, kan het aansluiten van deze eenheid met het bijgeleverde netsnoer Ⓔ de antenne beschadigen.

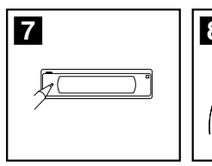
Opmerking betreffende de aansluitwaren
- *De voedingskabel (blauw) van de elektrisch bediende antenne levert +12V gelijkstroom wanneer u de tuner aanschakelt of de functie AF (Alternative Frequency) of TA (Traffic Announcement) activeert.*
- *Wanneer uw auto is uitgerust met een FM/MW/LW-antenne in de achterruit/zijruit, moet u de antennevoedingskabel (blauw) of de hulpvoedingskabel (rood) aansluiten op de voedingsingang van de bestaande antenneversterker. Raadpleeg uw dealer voor meer details.*
- *Met dit apparaat is het niet mogelijk een automatische antenne zonder relaishuis te gebruiken.*

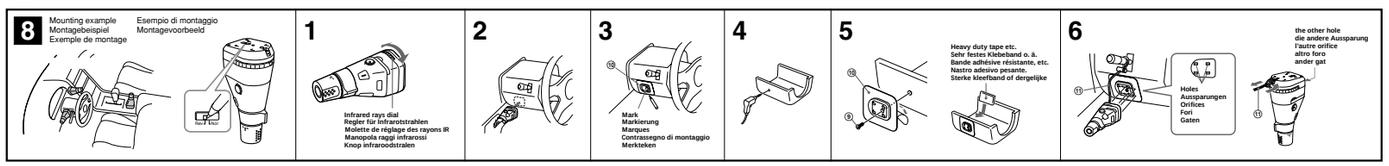
Instandhouden van het geheugen
Zolang de gele stroomdraad is aangesloten, blijft de stroomvoorziening van het geheugen intact, ook wanneer het contact van de auto wordt uitgeschakeld.

Opmerkingen betreffende het aansluiten van de luidsprekers
- *Zorg dat het apparaat is uitgeschakeld, alvorens de luidsprekers aan te sluiten.*
- *Gebruik luidsprekers met een impedantie van 4 tot 8 Ohm en let op dat die het vermogen van de versterker kunnen verwerken. Als dit wordt verzuimd, kunnen de luidsprekers ernstig beschadigd raken.*
- *Verbind in geen geval de aansluitingen van de luidsprekers met het chassis van de auto en sluit de aansluitingen van de rechter en linker luidspreker niet op elkaar aan.*
- *Verbind de massakabel van dit toestel niet met de negatieve (-) aansluiting van de luidspreker.*
- *Probeer nooit de luidsprekers parallel aan te sluiten.*
- *Sluit geen actieve luidsprekers (met ingebouwde versterker) aan op de luidsprekeraansluiting van dit apparaat. Dit zal leiden tot beschadiging van de actieve luidsprekers. Sluit dus altijd uitsluitend luidsprekers zonder ingebouwde versterker aan.*
- *Om defecten te vermijden mag u de bestaande luidsprekerbedrading in uw auto niet gebruiken wanneer er een gemeenschappelijke negatieve (-) draad is voor de rechter en linker luidsprekers.*
- *Verbind de luidsprekerdraden niet met elkaar.*









Precautions

- Choose the installation location carefully so that the unit will not interfere with normal driving operations.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperature, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

(CDX-M770/M670)
Adjust the mounting angle to less than 60°.

(MDX-M690)
Adjust the mounting angle to less than 20°.

Extended portion of the front panel (4)

How to detach and attach the main display window (5)

Before installing the unit, detach the front panel.

5-A To detach

1 Press OPEN **on the unit for 2 seconds.**
CD/MD playback or radio reception stops, and the front panel automatically tilts at an angle of 30°.

2 Detach the main display window as illustrated.
After the main display window detaching is complete, the front panel closes automatically.

5-B To attach

Place the main display window on the front side of the unit as illustrated, then lightly push the front panel into position until it clicks.

Mounting example (6)

Installation in the dashboard

6-✳ ***Note***

When installing this unit, be sure to close the front panel of the unit.
If the front panel is opened while installing and given too much force, it may cause a malfunction.

Warning when installing in a car without ACC (accessory) position on the ignition key switch

Be sure to press OFF **on the unit for two seconds to turn off the clock display after turning off the engine.**
When you press OFF only momentarily, the clock display does not turn off and this causes battery wear.

Reset button (7)

When the installation and connections are completed, be sure to press the Reset button with a ballpoint pen, etc.

Installing the rotary commander (RM-X5S) (8)

Notes

- *Choose the mounting location carefully so that the rotary commander will not interfere with operating the car.*
- *Do not install the rotary commander where it may jeopardize the safety of the (front) passenger in anyway.*
- *When installing the rotary commander, be sure not to damage the electrical cables etc. on the other side of the mounting surface.*
- *Avoid installing the rotary commander where it may be subject to high temperatures, such as from direct sunlight or hot air from the heater etc.*
- *The Rev/Hor-select switch is located on the bottom of the rotary commander. Select "Hor" to use the rotary commander as the factory-set position. Select "Rev" when you mount the rotary commander on the right side of the steering column.*

Tip

Rev/Hor cannot be selected on the side of master unit.

1 Press the buttons and rotate the controls to make sure that your master unit reacts well.
You can change the direction of infrared rays by turning the dial on the rotary commander.

Caution

Be sure that the place where you install the rotary commander is within the range of reception on the unit.

2 Choose the exact location for the rotary commander to be mounted, then clean the mounting surface.
Dirt or oil impair the adhesive strength of the double-sided adhesive tape.

3 Mark position for the supplied screw.
Use the screw holes on the mounting hardware ⑨ to mark the positions.
If you cannot make the mounting hardware ⑨ fit easy, cut the mounting hardware ⑨ to fit the steering wheel column cover.

4 Remove the steering wheel column cover, and drill 2 mm diameter hole where you have marked.

5 Warm the mounting surface and the double-sided adhesive tape on the mounting hardware ⑨ to the temperature of 20 °C to 30 °C, and attach the mounting hardware ⑨ onto the mounting surface by applying even pressure. Then screw it down with the supplied screw ⑩.
Attach a piece of heavy duty tape etc. on the other side of the mounting surface to cover the protruding tips of the screws so that they will not interfere with the electrical cables etc. inside the steering wheel column.

6 After installing the steering wheel column cover, attach the rotary commander to the mounting hardware by aligning the four holes on the bottom of the rotary commander to the four catches on the mounting hardware and sliding the rotary commander until it locks into place as illustrated.

Cautions

- *Be sure to attach the supplied strap ⑪ when installing the rotary commander near the steering wheel.*
- *Be sure that the strap ⑪ does not get caught on the car controls (gear, shifter, etc.).*
- *Be sure to tighten the stopper of the strap ⑪ after hanging the strap ⑪ on the indicator switch, etc.*

Tip

There are two holes for the strap ⑪. You can use whichever hole you prefer.

Note

If you are mounting the rotary commander to the steering wheel column, make sure that the protruding tips of the screws on the inner surface of the column do not in anyway hinder or interfere with the movement of the rotating shaft, operative parts of the switches or the electrical cables etc. inside the column.

Vorsichtsma nahmen

- Wählen Sie den Einbauort sorgfältig so aus, daß das Gerät beim Fahren nicht hinderlich ist.
- Bauen Sie das Gerät so ein, daß es keinen hohen Temperaturen (keinem direkten Sonnenlicht, keiner Warmluft von der Heizung), keinem Staub, keinem Schmutz und keinen starken Vibrationen ausgesetzt ist.
- Für eine sichere Befestigung verwenden Sie stets nur die mitgelieferten Montageteile.

Hinweis zum Montagewinkel

(CDX-M770/M670)
Das Gerät sollte in einem Winkel von weniger als 60° montiert werden.

(MDX-M690)
Das Gerät sollte in einem Winkel von weniger als 20° montiert werden.

berstehender Teil der Frontplatte (4)

Abnehmen und Anbringen des Haupt-Displays (5)

Nehmen Sie die Frontplatte vor dem Einbau des Geräts ab.

5-A Abnehmen

1 Drücken Sie 2 Sekunden lang OPEN **am Gerät.**
Die CD/MD-Wiedergabe bzw. der Radioempfang stoppt, und die Frontplatte wird automatisch in einem Winkel von 30 Grad geneigt.

2 Nehmen Sie das Haupt-Display wie in der Abbildung dargestellt ab.
Wenn das Haupt-Display abgenommen ist, schließt sich die Frontplatte automatisch.

5-B Anbringen

Setzen Sie das Haupt-Display wie in der Abbildung dargestellt an die Vorderseite des Geräts an, und drücken Sie die Frontplatte dann leicht in die richtige Position, bis sie mit einem Klicken einrastet.

Montagebeispiel (6)

Installation im Armaturenbrett

6-✳ ***Hinweis***

Achten Sie beim Einbau des Geräts darauf, die Frontplatte geschlossen zu halten.
Wenn sich die Frontplatte beim Einbau öffnet und Sie zu stark darauf drücken, kann es zu einer Fehlfunktion kommen.

Warnhinweis zur Installation des Ger ts in einem Auto mit Z ndschlo ohne Zubeh rposition ACC oder I

Drücken Sie am Gerät unbedingt zwei Sekunden lang OFF**, um die Uhrzeitanzeige auszuschalten, nachdem Sie den Motor ausgeschaltet haben.**
Wenn Sie OFF nur kurz drücken, wird die Uhrzeitanzeige nicht ausgeschaltet, und der Autobatterie wird Strom entzogen.

R cksetztaste (7)

Nach der Installation und dem Anschluß muß die rückseitstaste mit einem Kugelschreiber o. ä. gedrückt werden.

Installieren des Joystick (RM-X5S) (8)

Hinweise

- *Wählen Sie den Montageort sorgfältig aus, so daß der Joystick beim Fahren nicht im Wege ist.*
- *Montieren Sie den Joystick nicht an einer Stelle, an der er eine Gefahr für den Beifahrer auf dem Vordersitz darstellen könnte.*
- *Achten Sie bei der Montage des Joystick darauf, die Elektrokabel an der anderen Seite der Montagefläche nicht zu beschädigen.*
- *Montieren Sie den Joystick nicht an einer Stelle, an der er hohen Temperaturen, zum Beispiel direktem Sonnenlicht oder der Warmluft aus der Wagenheizung, ausgesetzt ist.*
- *Der Wählschalter Rev/Hor befindet sich an der Unterseite des Joysticks. Wählen Sie „Hor", wenn die werksseitig voreingestellte Drehrichtung der Regler beibehalten werden soll. Wählen Sie „Rev", wenn Sie den Joystick auf der rechten Seite der Lenksäule anbringen.*

Tip

Rev/Hor kann nicht mit dem Hauptgerät ausgewählt werden.

1 Drücken Sie die Tasten, drehen Sie die Regler, und vergewissern Sie sich, daß das Hauptgerät entsprechend reagiert.
Sie können die Richtung der Infrarotstrahlen ändern, indem Sie den Regler am Joystick drehen.

Vorsicht

Vergewissern Sie sich, daß der Montageort des Joysticks innerhalb der Reichweite des Empfängers am Gerät ist.

2 Wählen Sie die Stelle aus, an der Sie den Joystick montieren wollen, und reinigen Sie dann die Montagefläche.
Staub oder Fettspuren beeinträchtigen die Haftung des doppelseitigen Klebebandes.

3 Markieren Sie die Stelle zum Anbringen der mitgelieferten Schraube.
Verwenden Sie dazu die Bohrung im Montageteil ⑨.
Wenn das Montageteil ⑨ nicht auf die Abdeckung der Lenkradsäule paßt, schneiden Sie es bitte zurecht.

4 Nehmen Sie die Abdeckung der Lenkradsäule ab, und bohren Sie an der Stelle, die Sie gerade markiert haben, ein Loch von 2 mm Durchmesser.

5 Erwärmen Sie die Montagestelle und das doppelseitige Klebeband am Montageteil ⑨ auf eine Temperatur von 20 bis 30 °C, und drücken Sie dann das Montageteil ⑨ gleichmäßigen Druck auf die Montagestelle. Befestigen Sie es dann mit der mitgelieferten Schraube ⑩.

6 Bringen Sie nun die Abdeckung der Lenkradsäule wieder an, und befestigen Sie dann den Joystick auf dem Montageteil, indem Sie die vier Aussparungen an der Unterseite des Joysticks an den vier Haken auf dem Montageteil ausrichten und den Joystick daraufschieben, bis er einrastet, wie auf der Abbildung zu sehen.

Vorsicht

- *Achten Sie darauf, den mitgelieferten Riemen ⑪ anzubringen, wenn Sie den Joystick in der Nähe des Lenkrades installieren.*
- *Achten Sie darauf, daß sich der Riemen ⑪ nicht an Bedienelementen des Fahrzeugs verfängt (Schalthebel, Handbremse usw.).*
- *Achten Sie darauf, den Stopper des Riemens ⑪ anzuziehen, nachdem Sie den Riemen ⑪ an den Blinkerhebel o. ä. gehängt haben.*

Tip

Für den Riemen ⑪ sind zwei Aussparungen vorhanden. Sie können sie nach Belieben auswählen.

Hinweis

Wenn Sie den Joystick an der Lenkradsäule montieren, achten Sie darauf, daß die vorstehenden Spitzen der Schrauben an der Innenfläche der Lenkradsäule die Bewegung der Lenkwelle, die Funktionsteile der Schalter bzw. die Elektrokabel innerhalb der Lenkradsäule in keiner Weise behindern.

Pr cautions

- Choisissez soigneusement l'emplacement de l'installation afin que l'appareil ne gêne pas la conduite normale du véhicule.
- Evitez d'installer l'appareil dans un endroit exposé à la poussière, à la saleté, à des vibrations excessives ou à des températures élevées comme en plein soleil ou à proximité de conduits de chauffage.
- Pour garantir un montage sûr, n'utilisez que le matériel fourni.

R glage de l'angle de montage

(CDX-M770/M670)
Ajustez l'inclinaison à un angle inférieur à 60°.

(MDX-M690)
Ajustez l'inclinaison à un angle inférieur à 20°.

Partie tendue de la fa ade (4)

Comment retirer et fixer l'Écran mobile (5)

Avant d'installer l'appareil, retirez la façade.

5-A Pour retirer

1 Appuyez sur la touche OPEN **de l'appareil pendant 2 secondes.**
La lecture du CD/MD ou la radio s'arrête et la façade s'incline automatiquement suivant un angle de 30 degrés.

2 Retirez l'écran mobile de la façon indiquée dans l'illustration.
Lorsque vous avez entièrement retiré l'écran mobile, la façade se referme automatiquement.

5-B Pour poser

Placez l'écran mobile devant l'appareil ainsi qu'il est indiqué dans l'illustration, puis exercez une légère pression sur la façade jusqu'à ce qu'il s'encliquette.

Exemple de montage (6)

Installation dans le tableau de bord

6-✳ ***Remarque***

Pendant l'installation de l'appareil, vérifiez que le panneau avant de cet appareil est fermé.
Si le panneau avant est ouvert pendant l'installation et s'il subit une force trop importante, un dysfonctionnement risque de se produire.

Avertissement en cas d'installation dans une voiture dont le contact ne comporte pas de position ACC (accessoires)

Appuyez sur la touche OFF **de l'appareil pendant deux secondes pour désactiver l'affichage de l'horloge après avoir coupé le moteur.**
Si vous n'appuyez que brièvement sur OFF, l'affichage de l'horloge ne disparaît pas, ce qui provoque la décharge de la batterie.

Touche de r initialisation (7)

Quand l'installation et les raccordements sont terminés, appuyez sur la touche de réinitialisation avec un stylo à bille, etc.

Installation du satellite de commande (RM-X5S) (8)

Remarques

- *Choisissez soigneusement l'endroit de montage afin que le satellite de commande n'interfère pas avec les commandes de la voiture.*
- *N'installez pas le satellite de commande dans un endroit qui risque de compromettre la sécurité du passager avant de quelque façon que ce soit.*
- *Lors de l'installation du satellite de commande, veillez à ne pas endommager les câbles électriques, etc., situés de l'autre côté de la surface de montage.*
- *Evitez d'installer le satellite de commande là où il risque d'être soumis à des températures élevées comme sous le rayonnement direct du soleil ou à côté d'une conduite de chauffage, etc.*
- *Le commutateur de sélection Rev/Hor est situé dans la partie inférieure du satellite de commande. Sélectionnez "Hor" pour utiliser le satellite de commande dans la position définie par défaut. Sélectionnez "Rev" si vous montez le satellite de commande du côté droit de la colonne de direction.*

Conseil

Il est impossible de sélectionner Rev/Hor sur le côté de l'appareil principal.

1 Appuyez sur les boutons et tournez les commandes pour vérifier que l'appareil principal réagit correctement.
Vous pouvez changer le sens des rayons IR en tournant la molette située sur le satellite de commande.

Précaution

Assurez-vous que l'endroit où vous installez le satellite de commande est à portée du récepteur de l'appareil.

2 Choisissez la position de montage exacte du satellite de commande et nettoyez la surface de montage.
Les souillures et l'huile altèrent le pouvoir adhérent de l'adhésif double face.

3 Marquez la position pour la vis fournie.
Utilisez l'orifice de vissage du support de montage ⑨ pour marquer les positions.
Si vous ne parvenez pas à ajuster aisément le support de montage ⑨, découpez-le afin qu'il s'adapte à la colonne de direction.

4 Déposez la garniture de la colonne de direction et percez un trou de 2 mm de diamètre aux endroits que vous avez marqués.

5 Chauffez la surface de montage et l'adhésif double face sur le support de montage ⑨ à une température comprise entre 20 °C et 30 °C et fixez le support de montage sur la surface de montage ⑨ en exerçant une pression uniforme. Vissez ensuite la vis ⑩ fournie.
Collez de la bande adhésive résistante, etc., de l'autre côté de la surface de montage de manière à couvrir l'extrémité saillante des vis de telle sorte qu'elle ne puisnent entrer en contact direct avec les câbles électriques, etc., à l'intérieur de la colonne de direction.

6 Après avoir remonté le couvercle de la colonne de direction, fixez le satellite de commande sur le support de montage en alignant les quatre orifices pratiqués à la base du satellite sur les quatre ergots du support de montage et faites coulisser le satellite de commande jusqu'à ce qu'il s'encliquette dans sa position définitive comme illustré.

Précautions

- *Lors de l'installation du satellite de commande près du volant, veillez à bien fixer la commande ⑪.*
- *Assurez-vous que la courroie ⑪ ne soit pas prise dans les commandes du véhicule (levier de vitesses, etc.).*
- *Assurez-vous de bien serrer la vis de sécurité de la courroie ⑪ après avoir accroché celle-ci au levier de changement de direction, etc.*

Conseil

Il existe deux orifices réservés à la courroie ⑪. Vous pouvez utiliser indifféremment l'un ou l'autre.

Remarque

Si vous montez le satellite de commande sur la colonne de direction, assurez-vous que l'extrémité saillante des vis à l'intérieur de la colonne de direction n'entrave en aucune façon le mouvement de l'axe, des organes de commande, des commutateurs ou des câbles électriques, etc., à l'intérieur de la colonne de direction.

Precauzioni

- Scegliere con attenzione la posizione per l'installazione in modo che l'apparecchio non interferisca con le operazioni di guida del conducente.
- Evitare di installare l'apparecchio dove sia soggetto ad alte temperature, come alla luce solare diretta o al getto di aria calda dell'impianto di riscaldamento, o dove possa essere soggetto a polvere, sporco o vibrazioni eccessive.
- Usare solo il materiale di montaggio in dotazione per un'installazione stabile e sicura.

Regolazione dell'angolo di montaggio

(CDX-M770/M670)
Regolare l'angolo di montaggio in modo che sia inferiore a 60°.

(MDX-M690)
Regolare l'angolo di montaggio in modo che sia inferiore a 20°.

parte sporgente del pannello anteriore (4)

Come rimuovere e applicare la finestra del display principale (5)

Prima di installare l'apparecchio rimuovere il pannello anteriore.

5-A Per rimuoverlo

1 Premere OPEN **sull'apparecchio per 2 secondi.**
la riproduzione di CD/MD o la ricezione radio si arresta, quindi il pannello anteriore si inclina automaticamente di 30 gradi.

2 Rimuovere la finestra del display principale, come illustrato.
Una volta completata la rimozione della finestra del display principale, il pannello anteriore si chiude automaticamente.

5-B Per reinserirlo

Posizionare la finestra del display principale sul lato anteriore dell'apparecchio come illustrato, quindi spingere il pannello anteriore evitando di esercitare eccessiva pressione fino a quando non scatta in posizione.

Esempio di montaggio (6)

Installazione nel cruscotto

6-✳ ***Nota***

Durante l'installazione dell'apparecchio, assicurarsi di chiudere il relativo pannello anteriore.
Se durante l'installazione il pannello anteriore è aperto e viene esercitata eccessiva forza, è possibile che si verifichino problemi di funzionamento.

Informazioni importanti per quando si effettua l'installazione su un'auto sprovvista della posizione ACC sull'interruttore di accensione

Assicurarsi di premere OFF **sull'apparecchio per due secondi per spegnere il display dell'orologio dopo che il motore è stato spento.**
Se si preme OFF solo per un attimo, il display dell'orologio non si spegne causando in questo modo lo scaricamento della batteria.

Tasto di azzeramento (7)

Dopo avere terminato l'installazione e i collegamenti, assicurarsi di premere il tasto di azzeramento con la punta di una penna a sfera, ecc.

Installazione del telecomando a rotazione (RM-X5S) (8)

Note

- *Scegliere attentamente la posizione di montaggio in modo che il telecomando a rotazione non interferisca con la guida.*
- *Non installare il telecomando a rotazione in posizione tale da poter compromettere in alcun modo la sicurezza del passeggero.*
- *Al momento di installare il telecomando a rotazione assicurarsi di non danneggiare i cavi elettrici ecc. nella parte posteriore della superficie di montaggio.*
- *Non installare il telecomando a rotazione in posizione soggetta ad alte temperature, ad esempio esposto alla luce solare diretta o al calore proveniente dall'impianto di riscaldamento della vettura.*
- *L'interruttore di selezione Rev/Hor è situato nella parte inferiore del telecomando a rotazione. Selezionare "Hor" per utilizzare il telecomando a rotazione con le impostazioni di fabbrica. Selezionare "Rev" quando il telecomando a rotazione viene montato sul lato destro del piantone di guida.*

Suggerimento

Non è possibile selezionare Rev/Hor dall'unità principale.

1 Premere i tasti e ruotare i comandi per verificare che l'apparecchio principale funzioni correttamente.
È possibile cambiare la direzione dei raggi infrarossi ruotando la manopola sul telecomando a rotazione.

Attenzione

Assicurarsi che il luogo in cui viene installato il telecomando a rotazione sia all'interno della gamma del ricettore dell'unità principale.

2 Scegliere la posizione esatta di montaggio del telecomando a rotazione, quindi pulire la superficie di montaggio.
La sporcizia o l'unto possono pregiudicare la tenuta del nastro biadesivo.

3 Segnare la posizione di montaggio per la vite in dotazione.
Usare il foro per la vite sulla staffa di montaggio ⑨ per segnare la posizione.
Se non è possibile installare la staffa di montaggio ⑨ facilmente, tagliare la staffa di montaggio ⑨ per adattarla alla copertura del piantone di guida.

4 Rimuovere il coperchio della colonna del volante e praticare un foro di 2 mm di diametro nella posizione contrassegnata.

5 Riscaldare la superficie di montaggio e il nastro biadesivo sulla staffa di montaggio ⑨ ad una temperatura compresa tra 20 °C e 30 °C. Applicare la staffa di montaggio ⑨ sulla superficie di montaggio esercitando una pressione omogenea, quindi fissarla avvitando la vite ⑩ in dotazione.
Applicare una striscia di nastro adesivo pesante sull'altro lato della superficie di montaggio in modo da coprire la punta sporgente delle viti perché queste non interferiscano con i cavi elettrici all'interno della colonna del volante.

6 Dopo aver rimontato il coperchio della colonna del volante, montare il telecomando allineando i quattro fori sul fondo del comando ai quattro fermi sulla staffa di montaggio e facendo scorrere il telecomando fino a che non si blocca in posizione, come illustrato in figura.

Attenzione

- *Assicurarsi di inserire il cordino ⑪ in dotazione quando si installa il telecomando a rotazione vicino al volante.*
- *Assicurarsi che il cordino ⑪ non rimanga incastrato tra i comandi dell'automobile (cambio, pedali, ecc.).*
- *Assicurarsi di stringere il fermo del cordino ⑪ dopo aver applicato il cordino ⑪ all'interruttore dell'indicatore e così via.*

Suggerimento

Esistono due fori per il cordino ⑪.
Utilizzare indifferentemente uno dei due.

Nota

Se il telecomando viene montato sulla colonna del volante, assicurarsi che le punte sporgenti delle viti sulla superficie interna della colonna non pregiudichino o interferiscano in alcun modo con il movimento dell'albero, con i componenti degli interruttori o con i cavi elettrici etc. all'interno della colonna.

Voorzorgsmaatregelen

- Kies de installatieplaats zorgvuldig zodat het toestel de bestuurder niet hindert tijdens het rijden.
- Installeer het apparaat niet op plaatsen waar het blootgesteld wordt aan hoge temperaturen, b.v. in direct zonlicht of bij de warme luchtstroom van de autoverwarming, aan sterke trillingen, of waar het in contact komt met veel stof of vuil.
- Gebruik voor het veilig en stevig monteren van het apparaat uitsluitend de bijgeleverde montage-onderdelen.

Maximale montagehoek

(CDX-M770/M670)
Installeer het apparaat nooit onder een hoek van meer dan 60° met het horizontale vlak.

(MDX-M690)
Installeer het apparaat nooit onder een hoek van meer dan 20° met het horizontale vlak.

Verlengstuk van het frontpaneel (4)

Het hoofddisplay losmaken en bevestigen (5)

Verwijder, alvorens met het installeren te beginnen, het afneembare voorpaneel.

5-A Verwijderen

1 Hou OPEN **op het toestel 2 seconden ingedrukt.**
CD/MD weergave of radio-ontvangst stopt en het frontpaneel kantelt automatisch in een hoek van 30 graden.

2 Maak het hoofddisplay los zoals de afbeelding laat zien.
Nadat het hoofddisplay volledig is losgemaakt, sluit het frontpaneel automatisch.

5-B Bevestigen

Plaats het hoofddisplay voorzaan op het toestel zoals de afbeelding laat zien en druk het vervolgens lichtjes op zijn plaats tot het vastklikt.

Montagevoorbeeld (6)

Montage in het dashboard

6-✳ ***Opmerking***

Bij het installeren van het toestel dient het frontpaneel te zijn gesloten.
Als het frontpaneel tijdens het installeren open is, kan het worden geforceerd wat tot een defect kan leiden.

Opgelet bij het monteren in een auto waarvan het contactslot geen ACC (accessory) stand heeft

Druk OFF **op het toestel gedurende twee seconden in om de klokweergave uit te schakelen na het afzetten van de motor.**
Indien u slechts even op OFF) drukt, verdwijnt de tijdindicatie niet waardoor de batterij uitgeput raakt.

Terustelknop (7)

Druk, nadat u het apparaat heeft geïnstalleerd en de aansluitingen heeft gemaakt, met een balpen of een ander puntig voorwerp op de terustelknop.

Installatie van de bedieningssatelliet (RM-X5S) (8)

Opmerkingen

- *Ga zorgvuldig te werk bij het kiezen van een geschikte montageplaats zodat de bedieningssatelliet u nooit hindert bij het rijden.*
- *Installeer de bedieningssatelliet nooit op een plaats waar hij de veiligheid van de (voor)passagier in gevaar kan brengen.*
- *Bij het installeren van de bedieningssatelliet moet u erop letten dat u de elektrische bedrading en dergelijke aan de andere kant van het montagevlak niet beschadigt.*
- *Installeer de bedieningssatelliet niet op plaatsen waar hij blootstaat aan hoge temperaturen, bijvoorbeeld door rechtstreekse zonnestraling of warme lucht afkomstig van de verwarming, enz.*
- *De Rev/Hor-keuzeschakelaar bevindt zich onderaan op de bedieningssatelliet.*
  Kies "Hor" om de bedieningssatelliet te gebruiken met de fabrieksinstelling.
  Kies "Rev" wanneer u de bedieningssatelliet rechts op de stuurkolom monteert.

Tip

Rev/Hor kan niet worden geselecteerd op het hoofdtoestel.

1 Druk op de toetsen en draai aan de regelaars om zeker te zijn dat uw master unit goed functioneert.
U kunt de richting van de infraroodstralen wijzigen door aan de knop op de bedieningssatelliet te draaien.

Let op!

Zorg ervoor dat u de bedieningssatelliet installeert binnen het ontvangstbereik van het toestel.

2 Kies de exacte installatieplaats voor de bedieningssatelliet en maak vervolgens het montagevlak schoon.
Vuil of vet tasten het kleefvermogen van het dubbelzijdige plakband aan.

3 Markeer een bevestigingspunt voor de meegeleverde schroef.
Markeer de posities aan de hand van de schroefgaten in het bevestigingselement ⑨.
Als het bevestigingselement ⑨ niet goed past, moet u het overtollige gedeelte afsnijden zodat het wel in de stuurkolombekleding past.

4 Verwijder de stuurkolombekleding en boor een gat van 2 mm op de gemarkeerde posities.

5 Warm het bevestigingsvlak en de dubbelzijdige kleefband op het bevestigingselement ⑨ op tot een temperatuur van 20 à 30 °C en plaats de steun op het bevestigingsvlak door gelijkmatig aan te drukken. Schroef hem vervolgens vast met de meegeleverde schroef ⑩.
Breng een stuk tape of iets dergelijks aan op de andere kant van het bevestigingsvlak om te voorkomen dat de uitstekende schroefpunten in contact komen met de elektrische bedrading en dergelijke binnenin de stuurkolom.

6 Plaats de stuurkolombekleding terug en bevestig de bedieningssatelliet op het montage-accessoire door de vier gaten onderaan de bedieningssatelliet te laten samenvallen met de vier bevestigingsklemmen op het montage-accessoire en verschuif de bedieningssatelliet tot hij op zijn plaats klikt zoals de illustratie laat zien.

Let op!

- *Bevestig de meegeleverde riem ⑪ wanneer u de bedieningssatelliet in de buurt van het stuurwiel monteert.*
- *Zorg ervoor dat riem ⑪ niet kan verstrikt raken in de bedieningselementen van de auto (schakelpook enz).*
- *Zet de stopper op de riem ⑪ vast nadat u deze hebt bevestigd aan de richtingaanwijzerhendel enz*

Tip

Er zijn twee gaten voor riem ⑪. U kunt kiezen welk ervan u gebruikt.

Opmerking

Bij het monteren van de bedieningssatelliet op de stuurkolom, moet u ervoor zorgen dat de uitstekende punten van de schroeven aan de binnenkant van de stuurkolom de stuurstang, schakelaars, elektrische bedrading, enzovoort in de stuurkolom niet hinderen.

Power connection diagram

Auxiliary power connector may vary depending on the car. Check your car's auxiliary power connector diagram to make sure the connections match correctly. There are three basic types (illustrated below). You may need to switch the positions of the red and yellow leads in the car stereo's power connecting cord.
After matching the connections and switched power supply leads correctly, connect the unit to the car's power supply. If you have any questions and problems connecting your unit that are not covered in this manual, please consult the car dealer.

Diagramma dei collegamenti di alimentazione

Il connettore di alimentazione ausiliaria può variare a seconda della macchina. Controllare il diagramma del connettore di alimentazione ausiliaria della macchina per essere sicuri che le connessioni corrispondano correttamente. Vi sono tre tipi di base (illustrazione sotto). Potrà essere necessario cambiare le posizioni dei conduttori rosso e giallo nel cavo di alimentazione dello stereo della macchina.
Dopo aver fatto corrispondere le connessioni e i cavi di alimentazione commutata, collegare l'apparecchio all'alimentazione della macchina. Se si hanno domande o se sorgono problemi che non sono stati trattati nel manuale nel collegare l'apparecchio, contattare l'autoconcessionario.

Stromanschlu diagramm

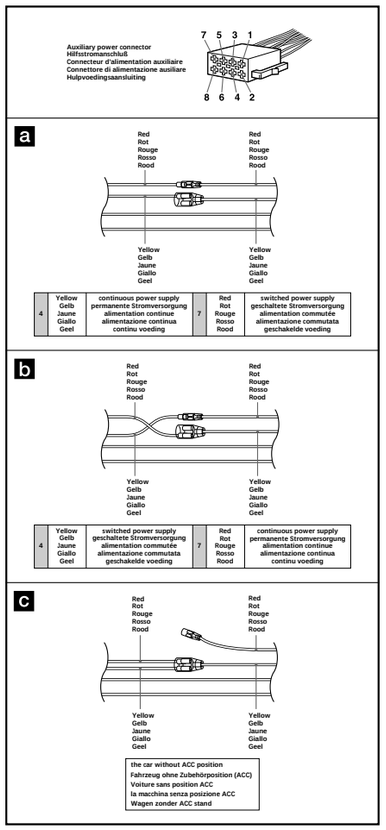
Der Hilfsstromanschluß kann je nach Fahrzeugtyp unterschiedlich sein. Sehen Sie im Hilfsstromanschlußdiagramm für Ihr Fahrzeug nach, wie die Verbindung ordnungsgemäß vorgenommen werden muß. Es gibt, wie unten abgebildet, drei grundlegende Typen. Sie müssen möglicherweise die rote und gelbe Leitung des Stromversorgungskabels der Autostereoanlage vertauschen.
Stellen Sie die Anschlüsse her, schließen Sie die geschalteten Stromversorgungsleitungen richtig an, und verbinden Sie dann das Gerät mit der Stromversorgung Ihres Fahrzeugs. Wenn beim Anschließen des Geräts Fragen oder Probleme auftreten, die in dieser Bedienungsanleitung nicht erläutert werden, wenden Sie sich bitte an den Autohändler.

Voedingsaansluitschema

De hulpvoedingsaansluiting kan verschillen naargelang van de wagen. Controleer het voedingsaansluitschema dat bij dit toestel wordt geleverd om te zien of de aansluitingen kloppen. Er zijn drie basistypes (zie illustratie hieronder).
Als de aansluitingen en geschakelde voedingskabels kloppen, sluit u het toestel aan op de voeding van de wagen. Indien u nog vragen of problemen hebt in verband met het aansluiten van het toestel die niet in deze handleiding vermeld staan, raadpleeg dan de autodealer.

Sch ma de connexion d'alimentation

Le connecteur d'alimentation auxiliaire peut varier suivant le type de voiture. Vérifiez le schéma du connecteur d'alimentation auxiliaire de votre voiture pour vous assurer que les connexions correspondent. Il en existe trois types de base (illustrés ci-dessous). Il se peut que vous deviez commuter la position du fil rouge et jaune du cordon d'alimentation de l'autoradio.
Après avoir établi les connexions et commuté correctement les fils d'alimentation, raccordez l'appareil à l'alimentation de la voiture. Si vous avez des questions ou des difficultés à propos de cet appareil qui ne sont pas abordées dans le présent mode d'emploi, consultez votre revendeur automobile.



SECTION 3
DISASSEMBLY

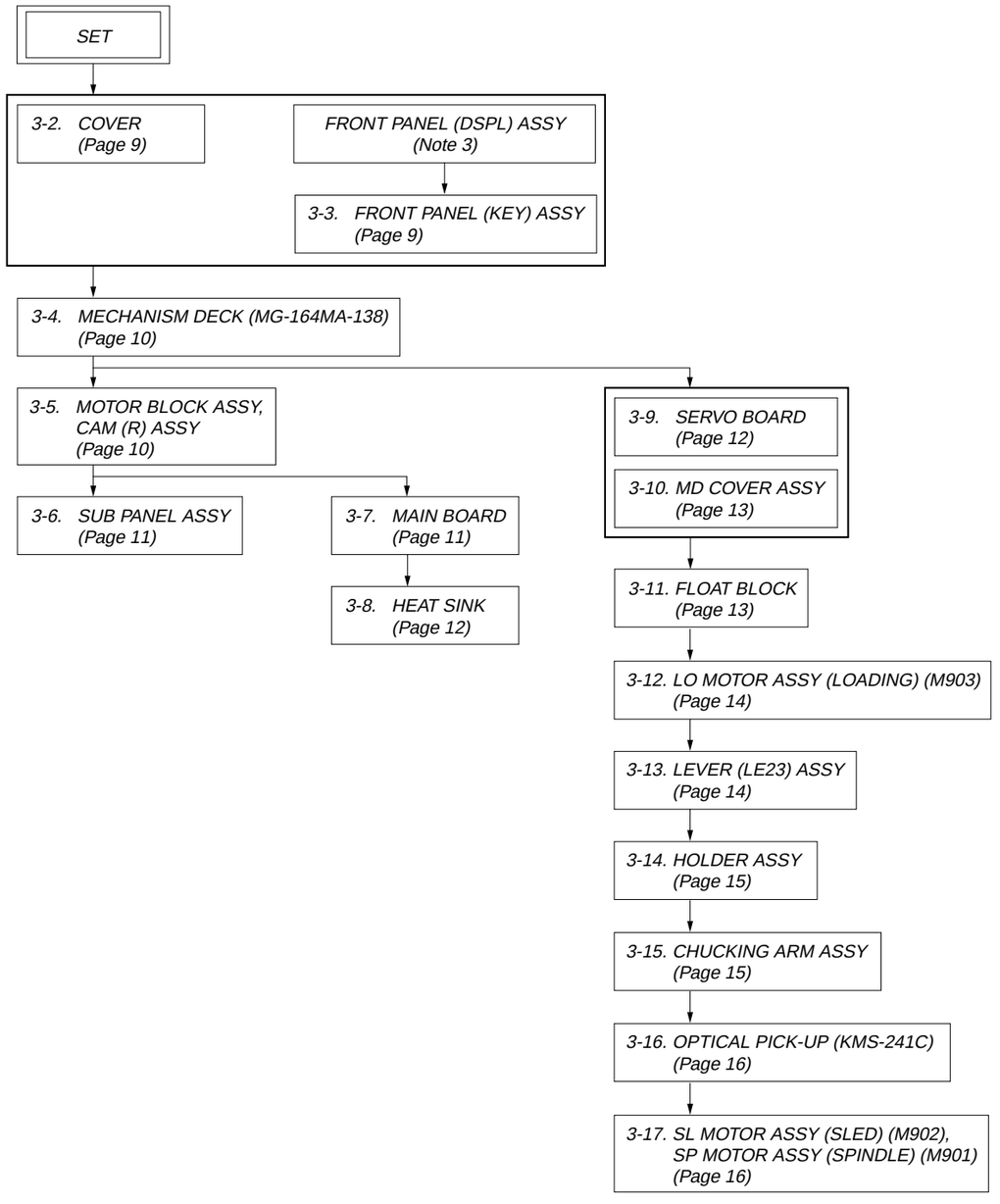
• This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

Note 1: *The process described in ⊟ can be performed in any order.*

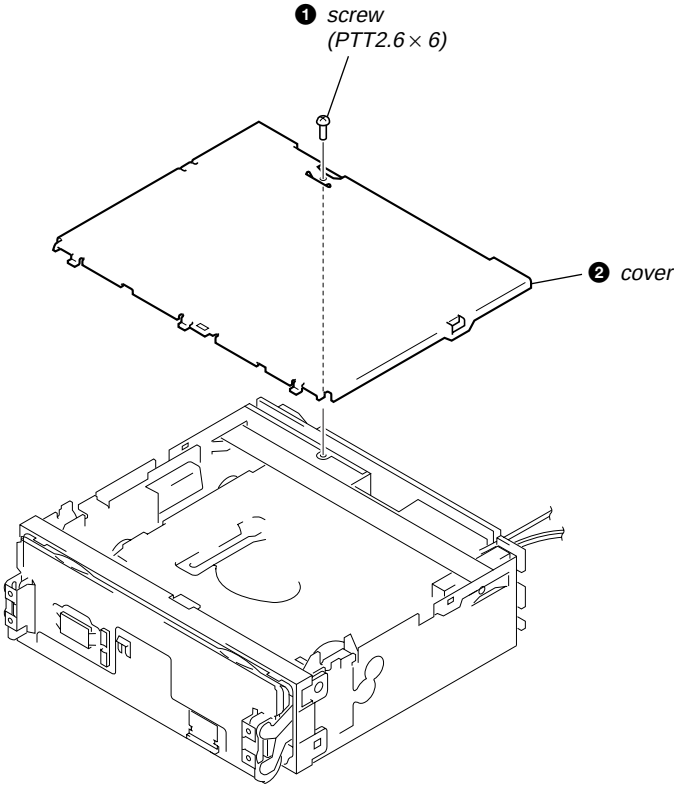
Note 2: *Without completing the process described in ⊟, the next process can not be performed.*

Note 3: *Illustration of disassembly is omitted.*

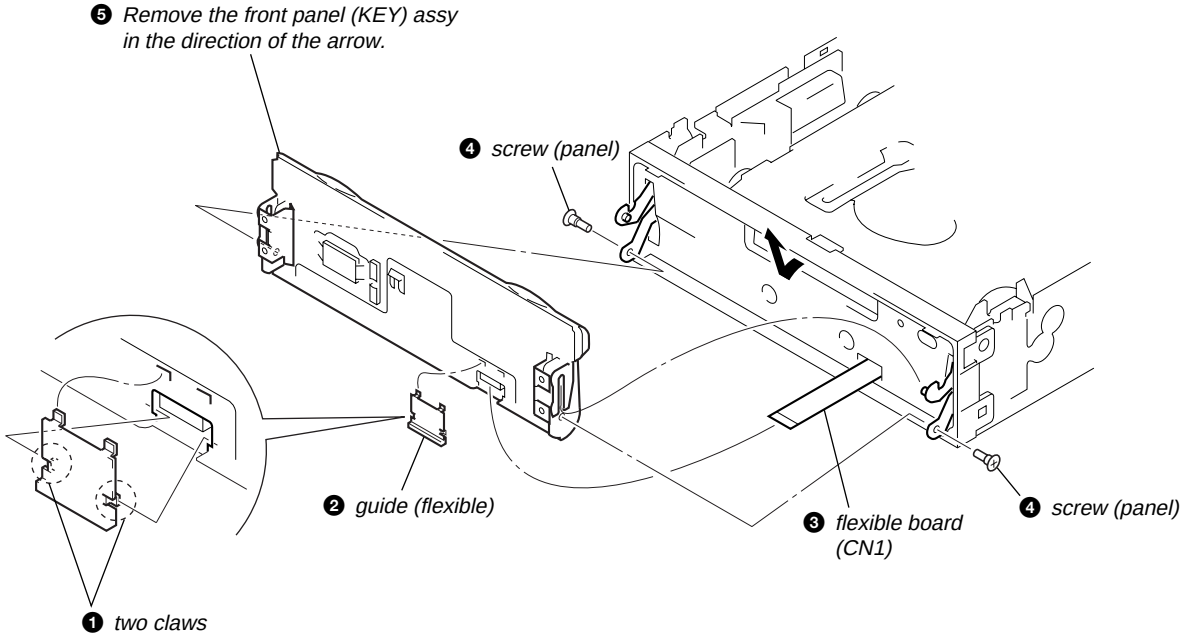


Note: Follow the disassembly procedure in the numerical order given.

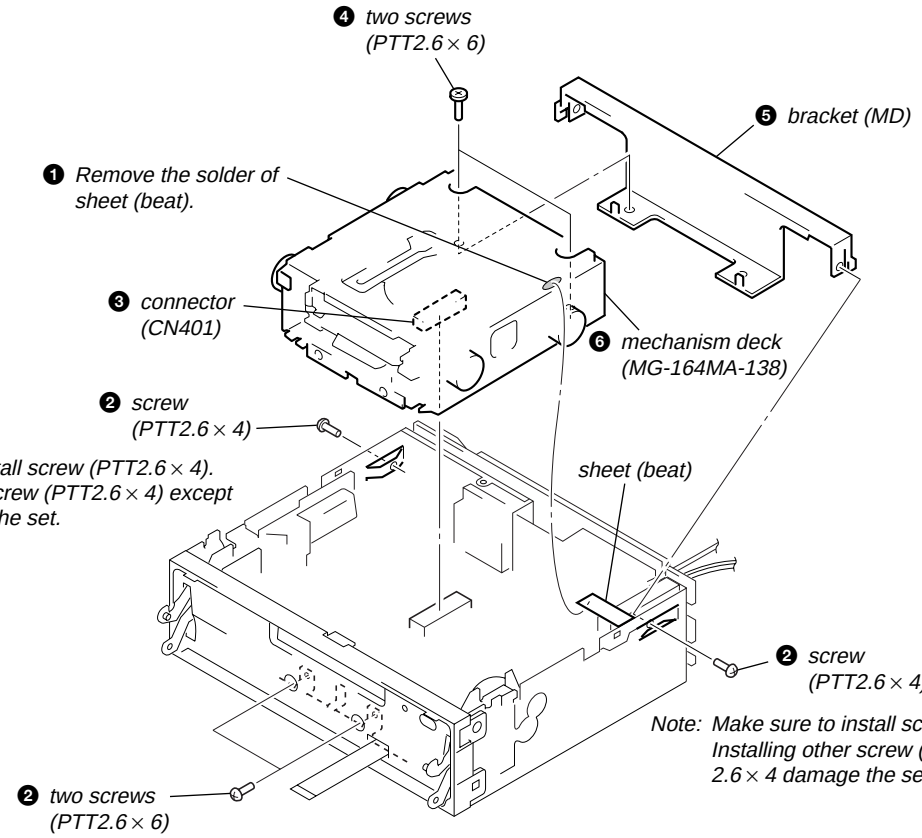
3-2. COVER



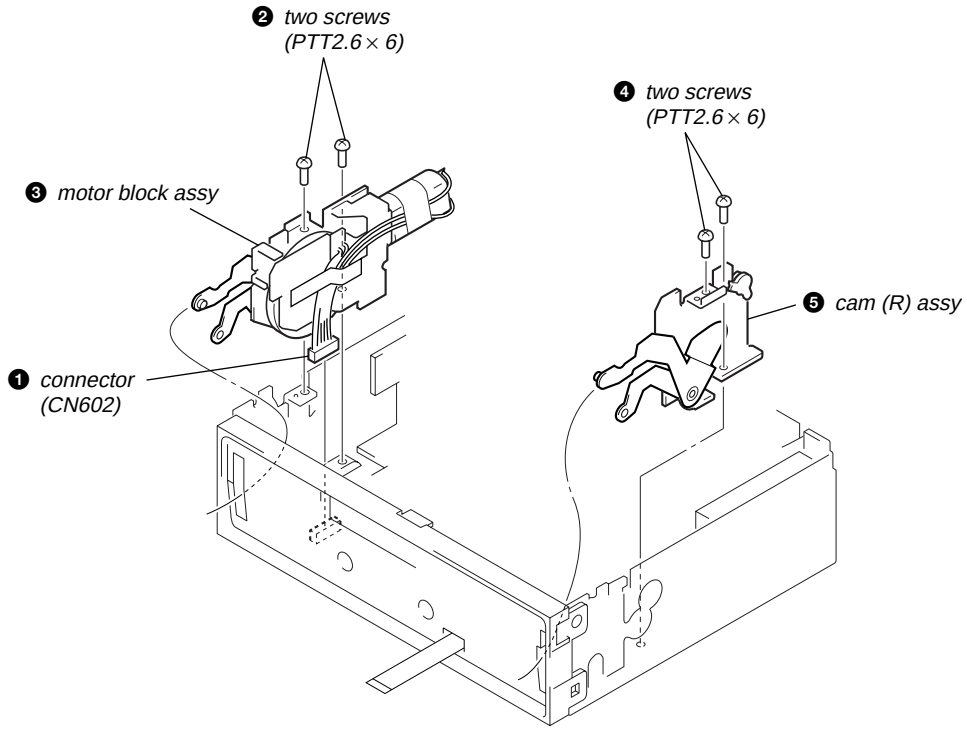
3-3. FRONT PANEL (KEY) ASSY



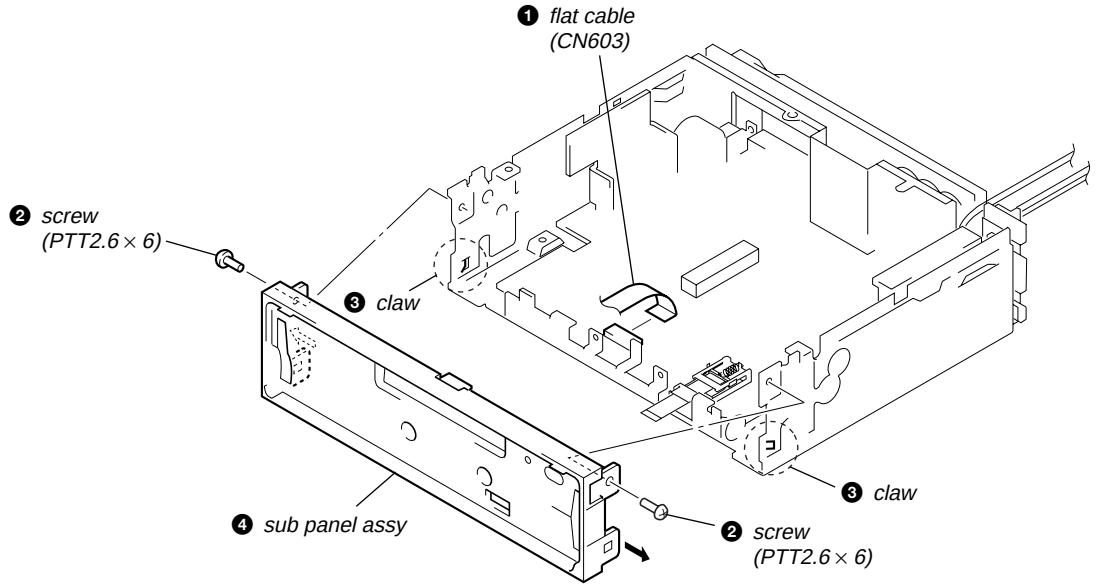
3-4. MECHANISM DECK (MG-164MA-138)



3-5. MOTOR BLOCK ASSY, CAM (R) ASSY

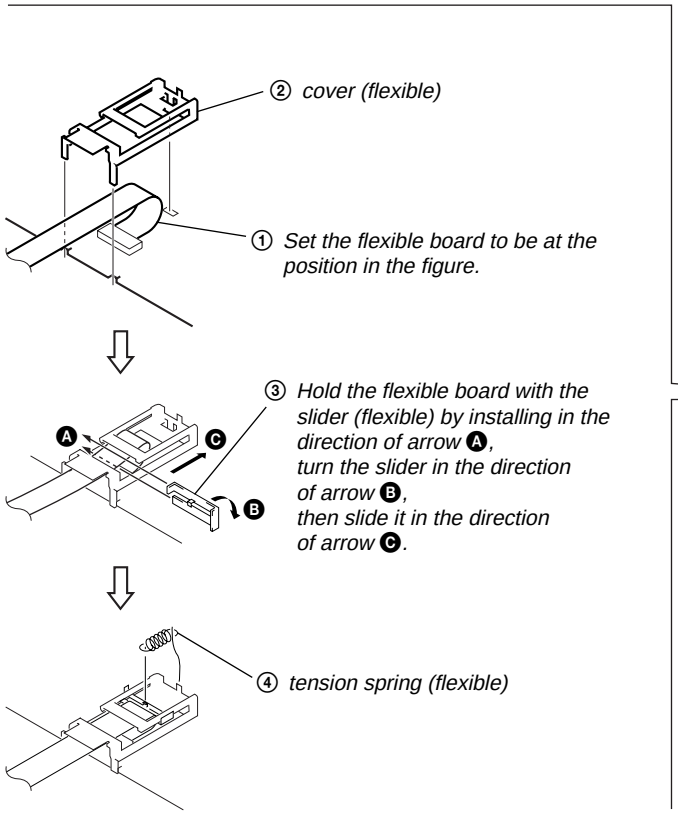


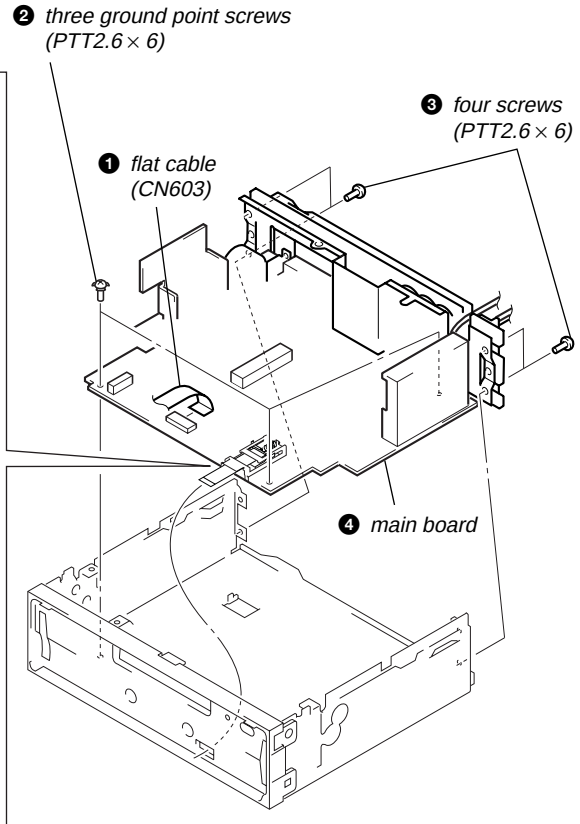
3-6. SUB PANEL ASSY



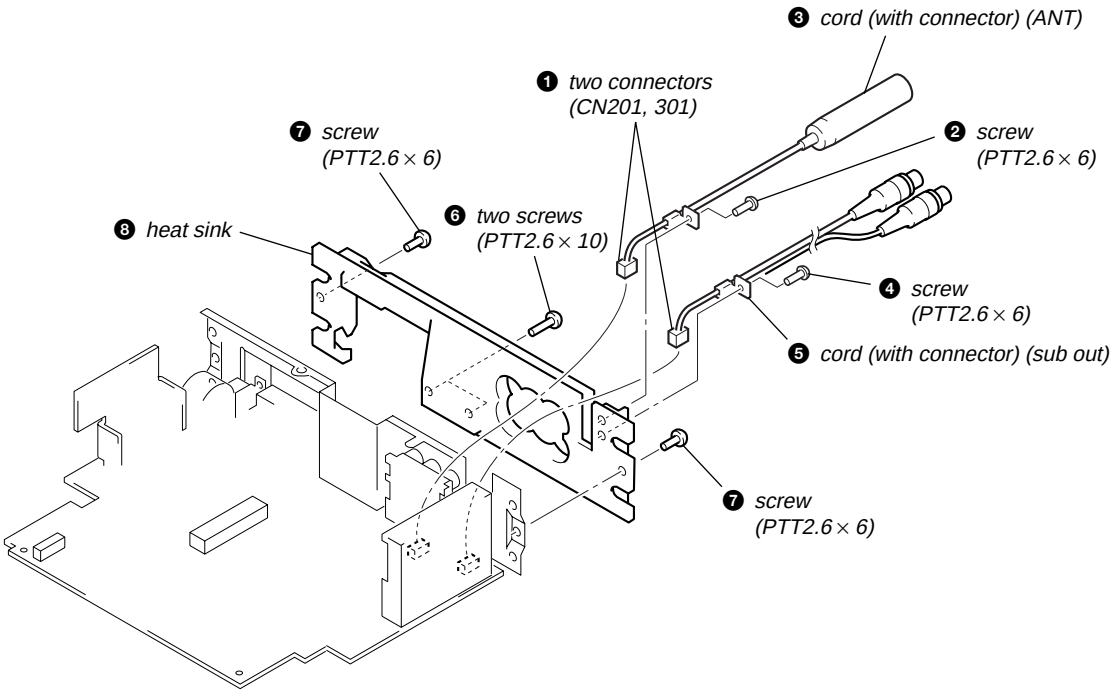
3-7. MAIN BOARD

- *Cover (flexible), Slider (flexible) and Tension spring (flexible) mounting method.*

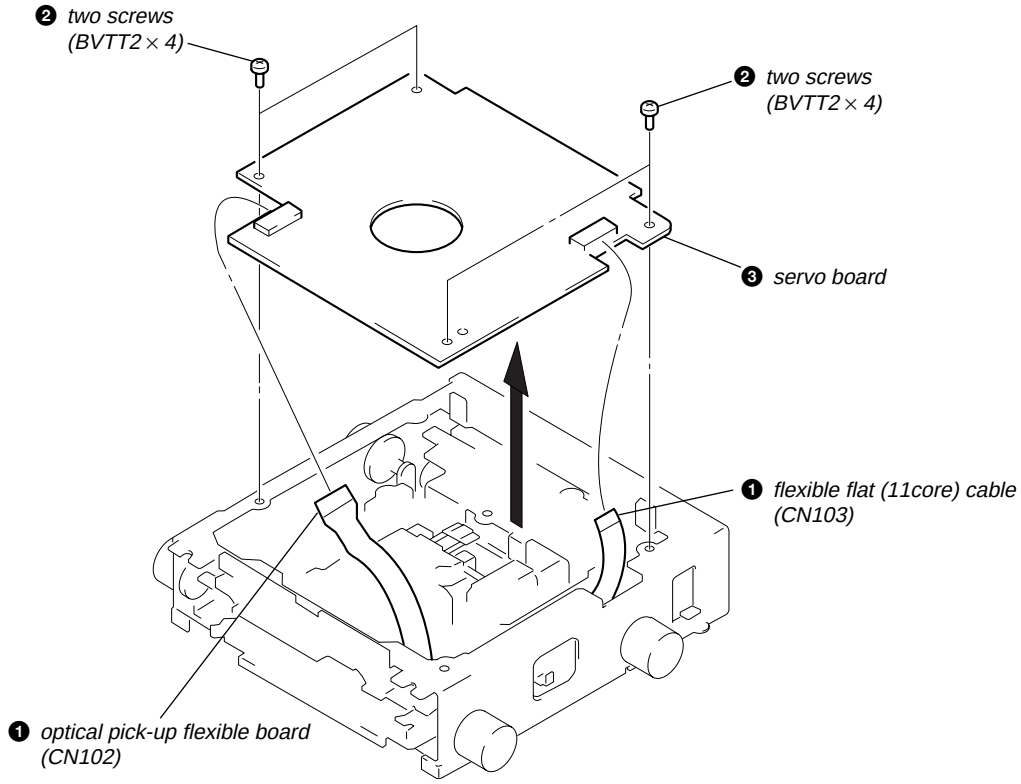




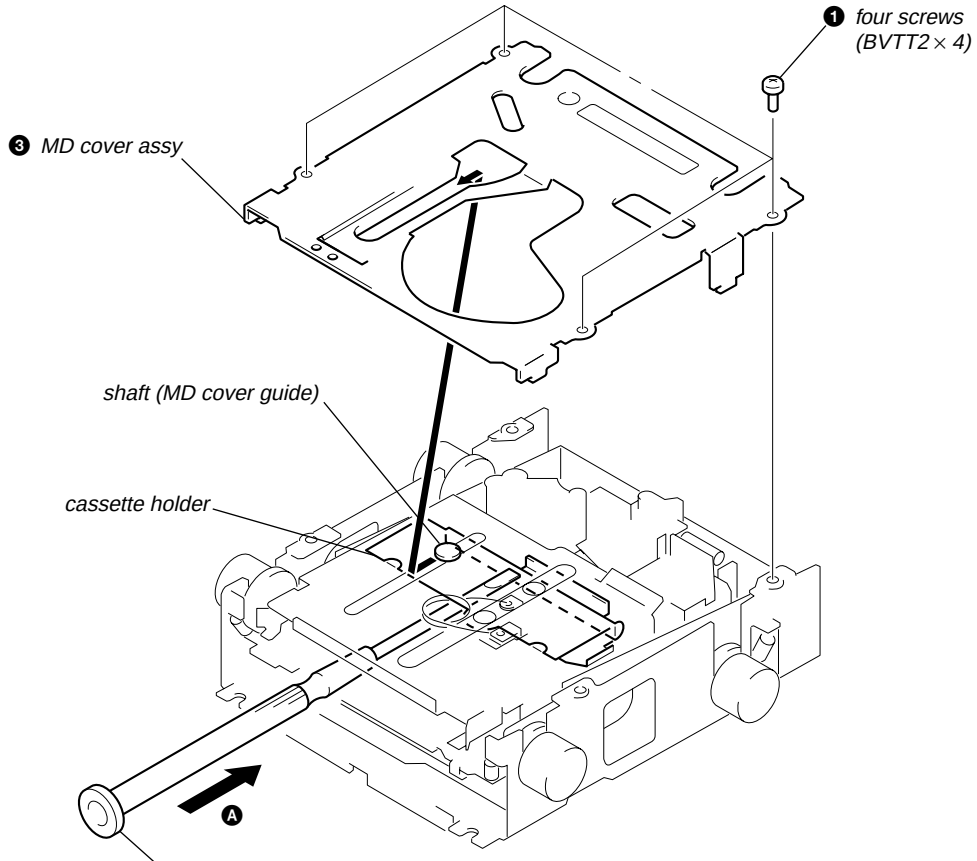
3-8. HEAT SINK



3-9. SERVO BOARD



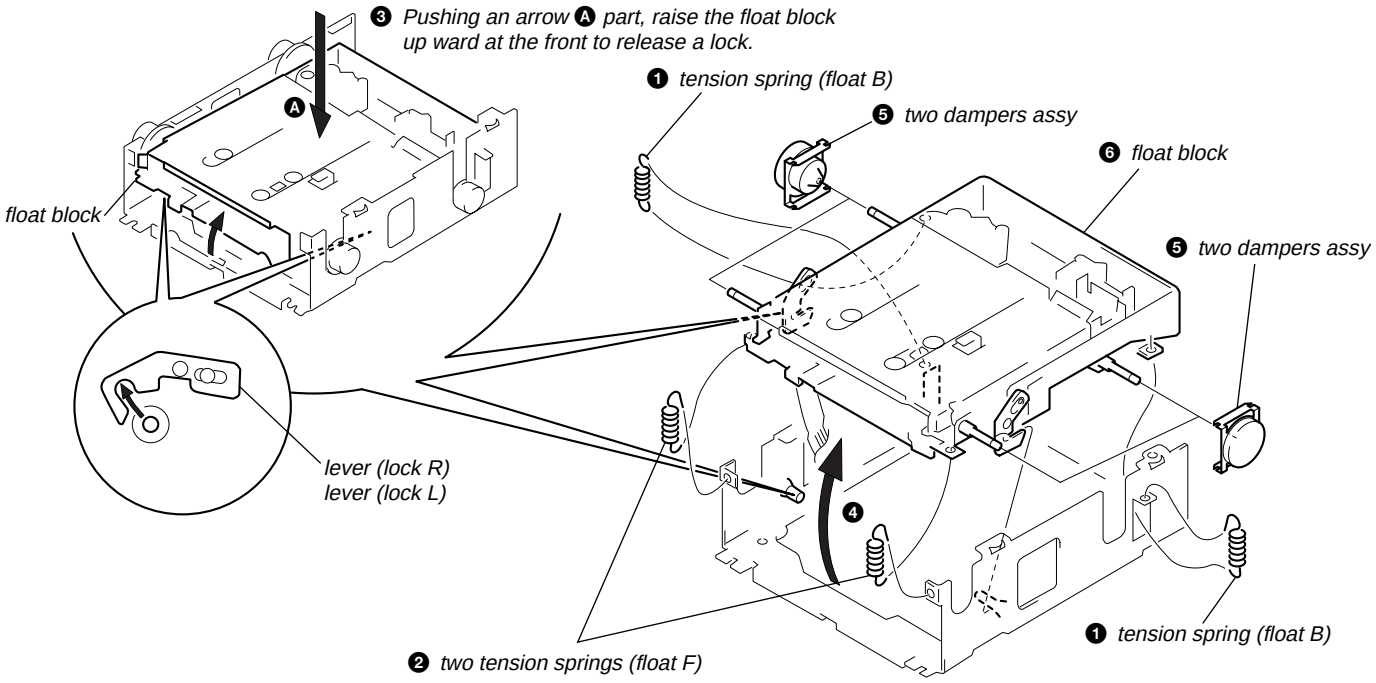
3-10. MD COVER ASSY



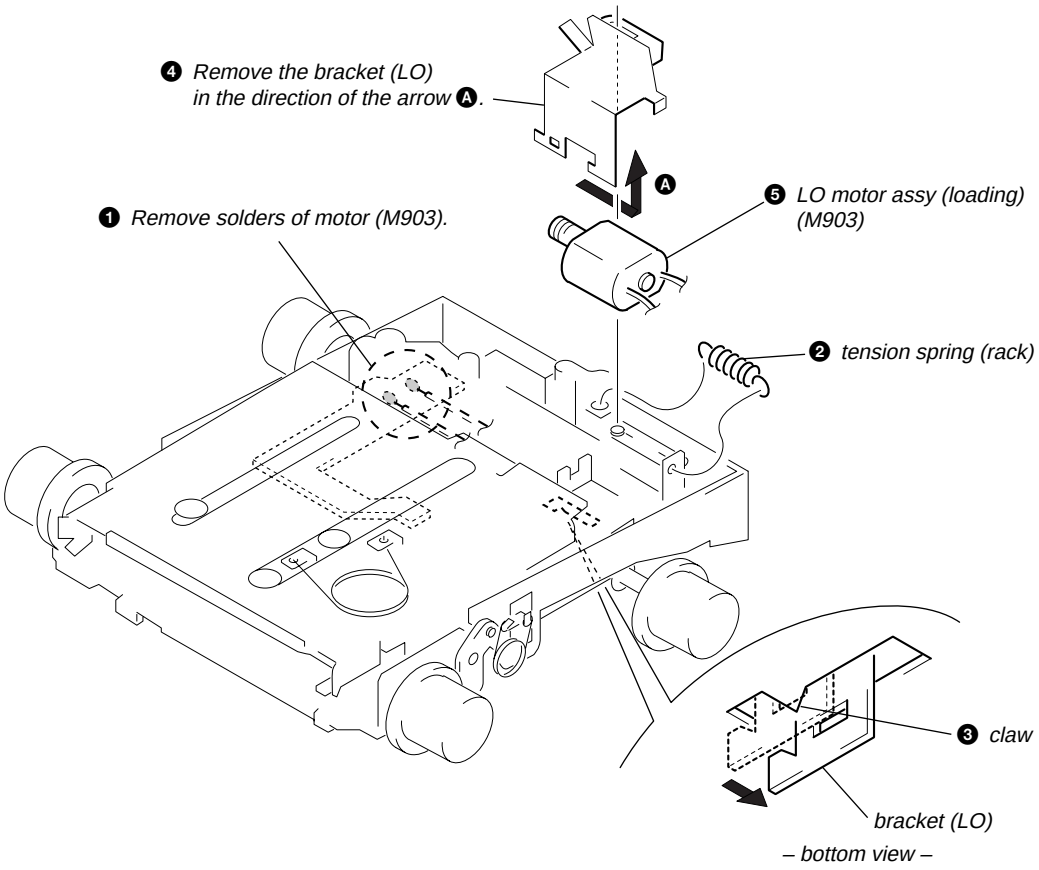
❷ *Pushing the cassette holder in the direction of the arrow Ⓐ with a screwdriver, etc., disengage the shaft (MD cover guide) from the slot in the MD cover assy.*

Note: Take care not to scratch the optical pick-up when pushing the cassette holder with a screwdriver. etc.

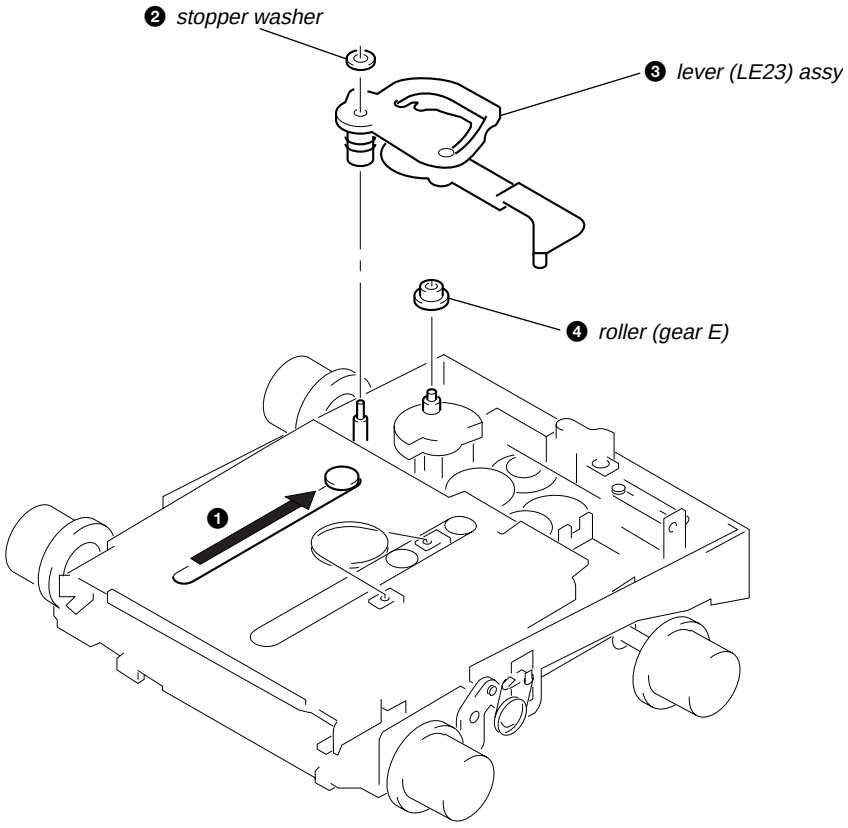
3-11. FLOAT BLOCK



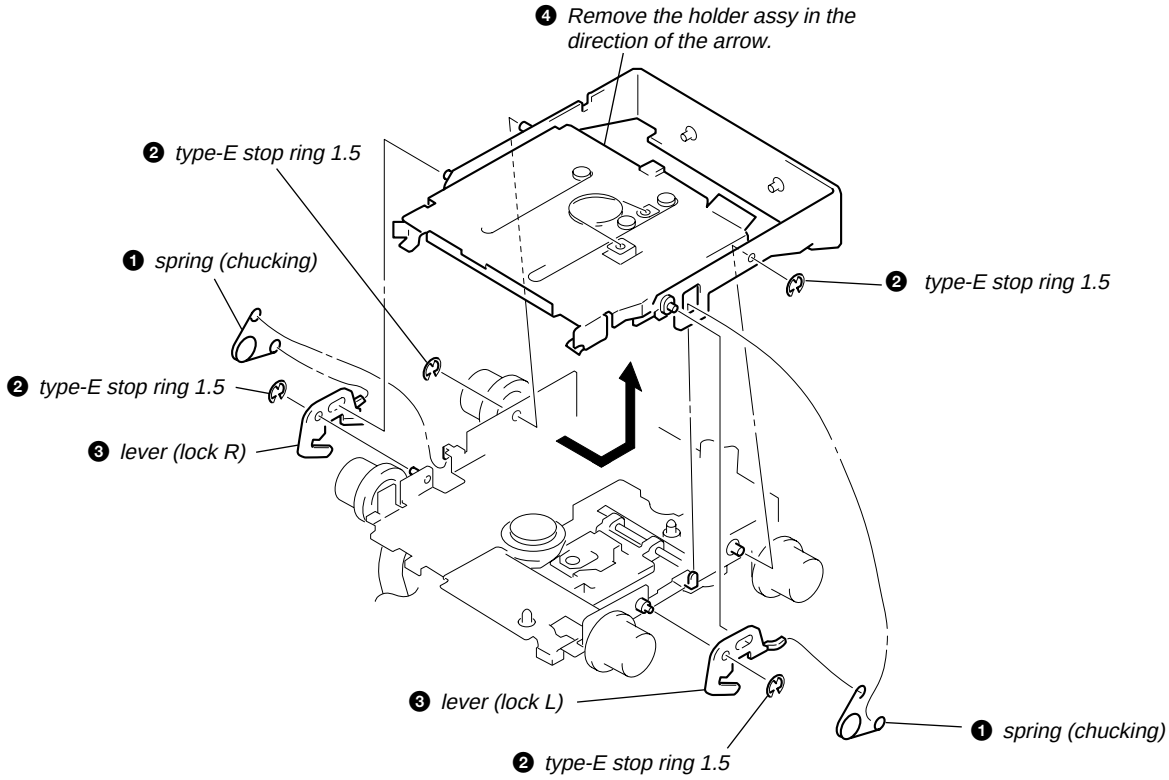
3-12. LO MOTOR ASSY (LOADING) (M903)



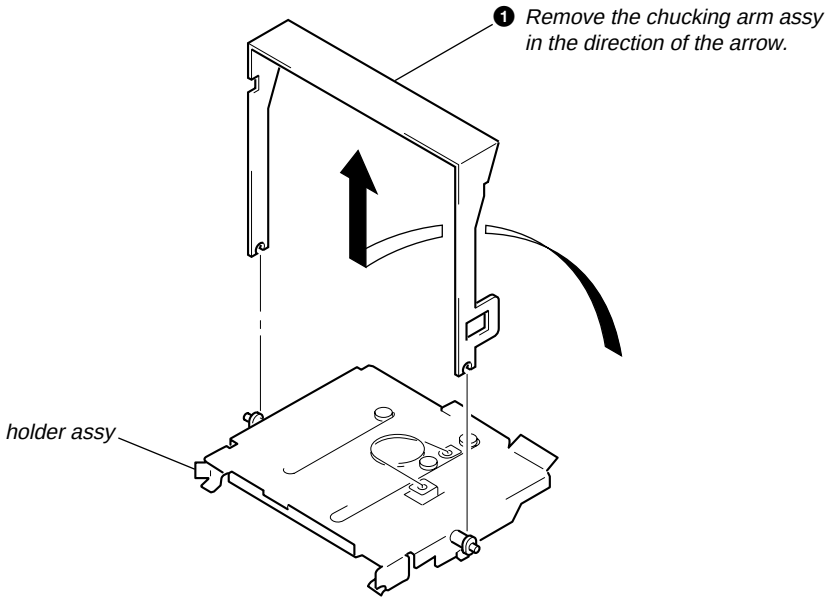
3-13. LEVER (LE23) ASSY



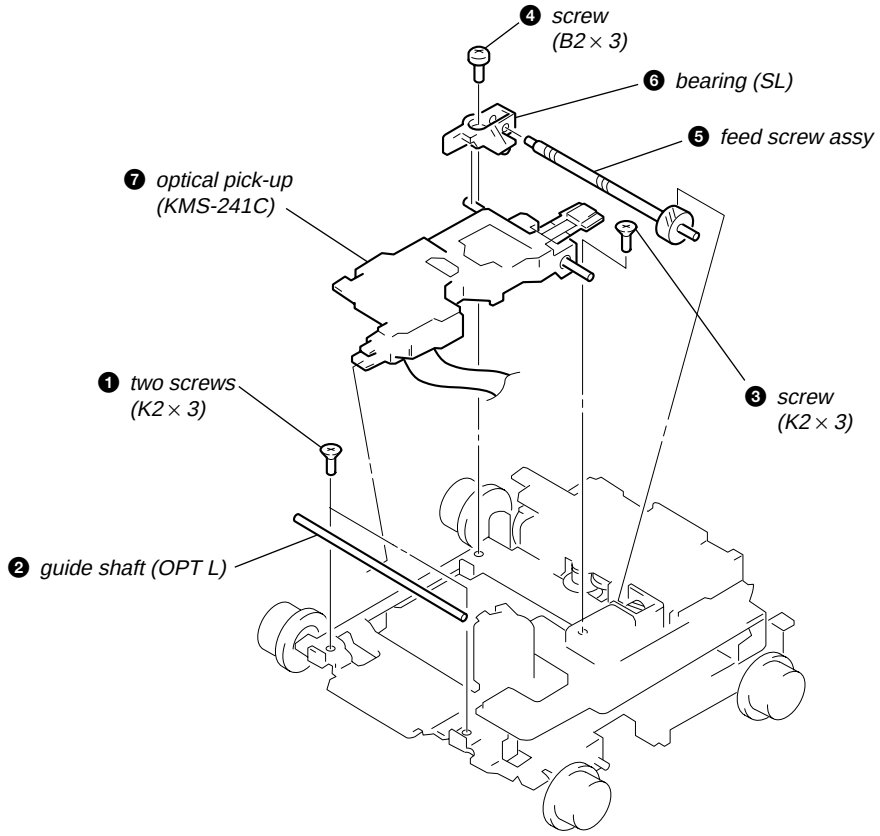
3-14. HOLDER ASSY



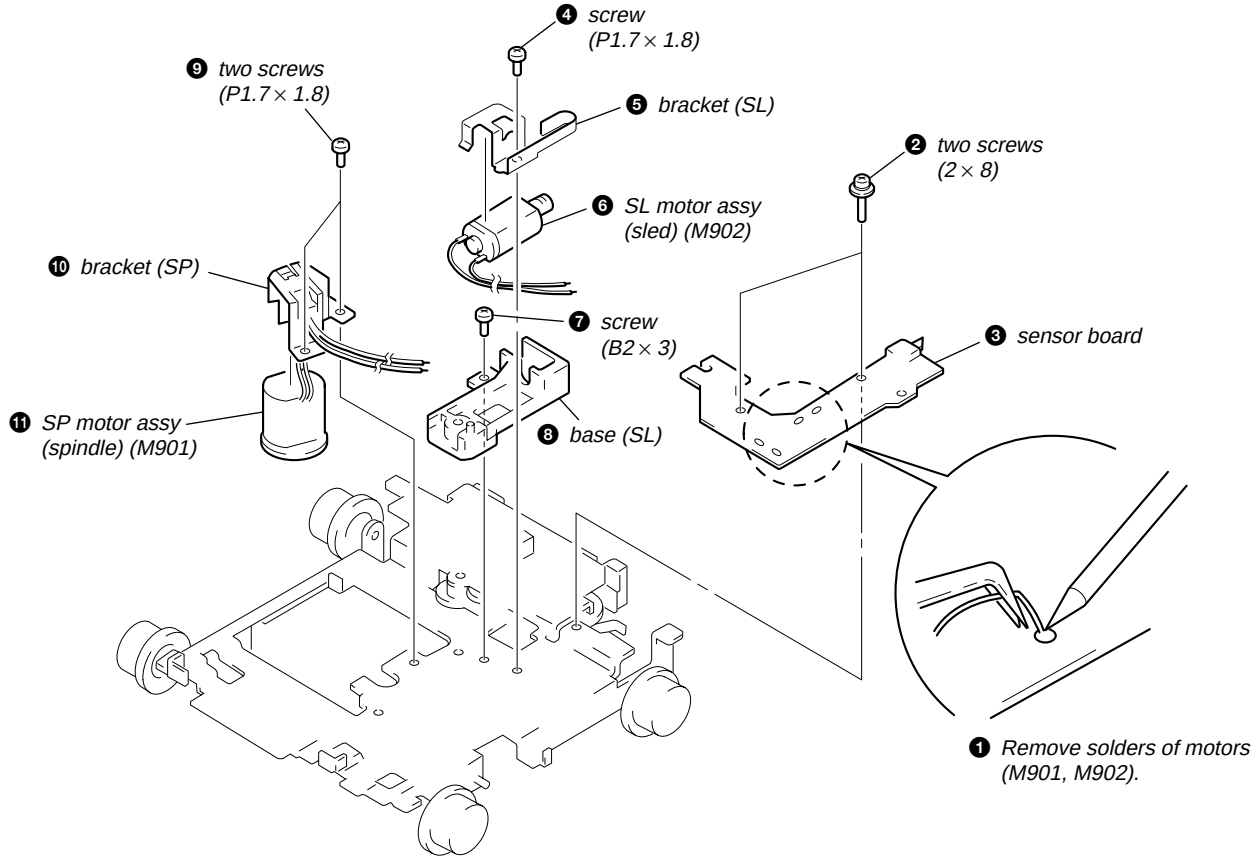
3-15. CHUCKING ARM ASSY



3-16. OPTICAL PICK-UP (KMS-241C)



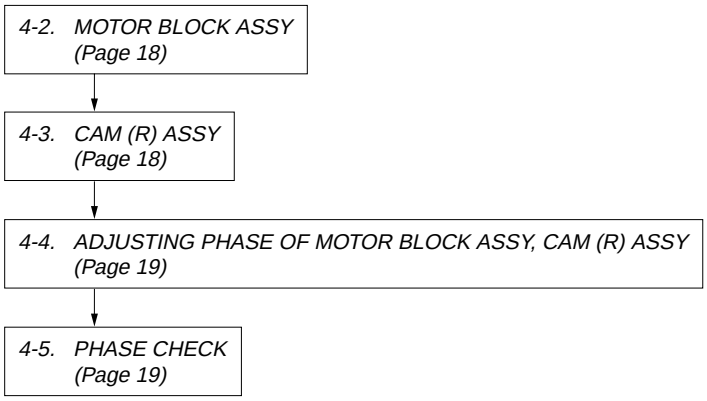
3-17. SL MOTOR ASSY (SLED) (M902), SP MOTOR ASSY (SPINDLE) (M901)



SECTION 4
ASSEMBLY

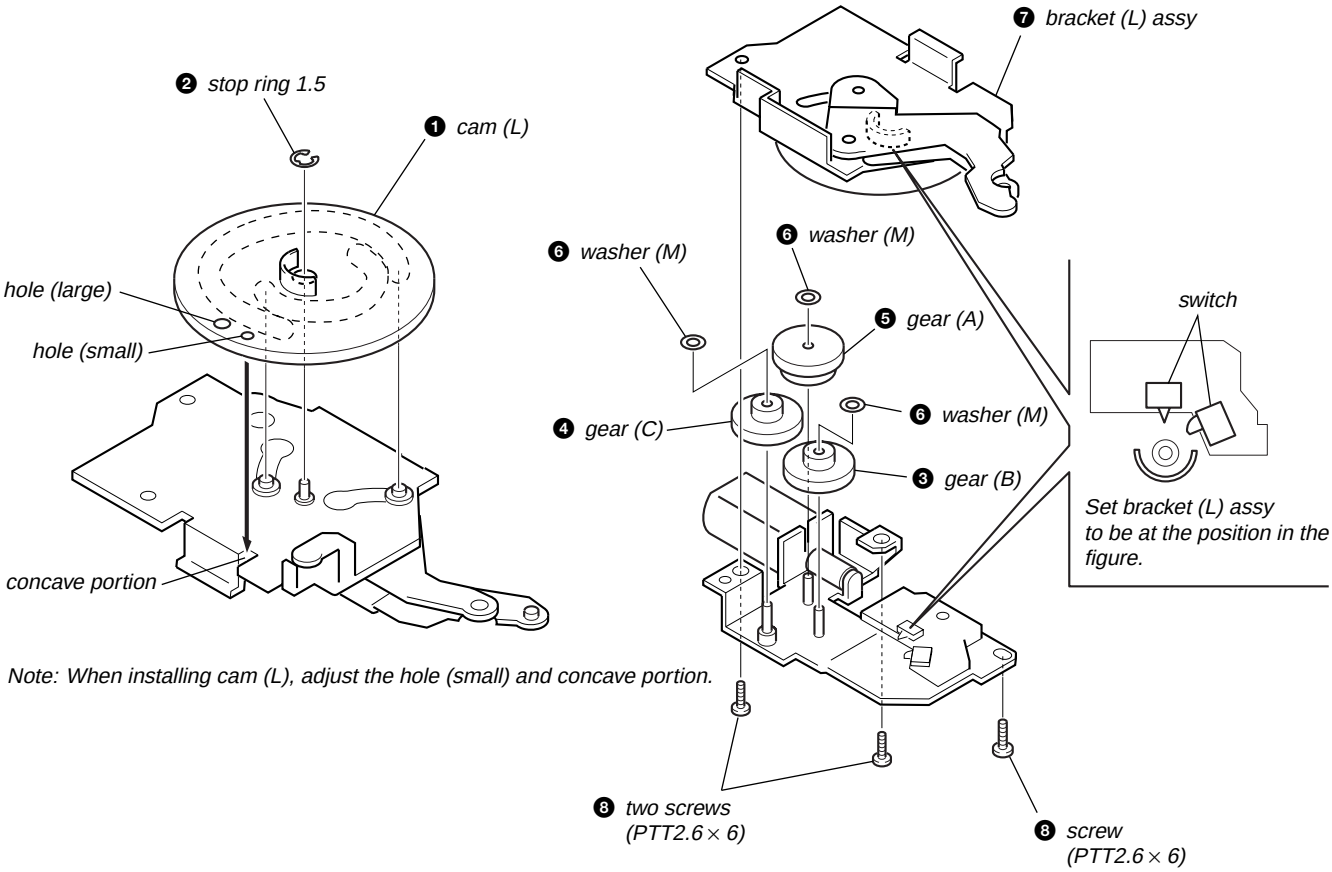
• This set can be assembled in the order shown below.

4-1. ASSEMBLY FLOW



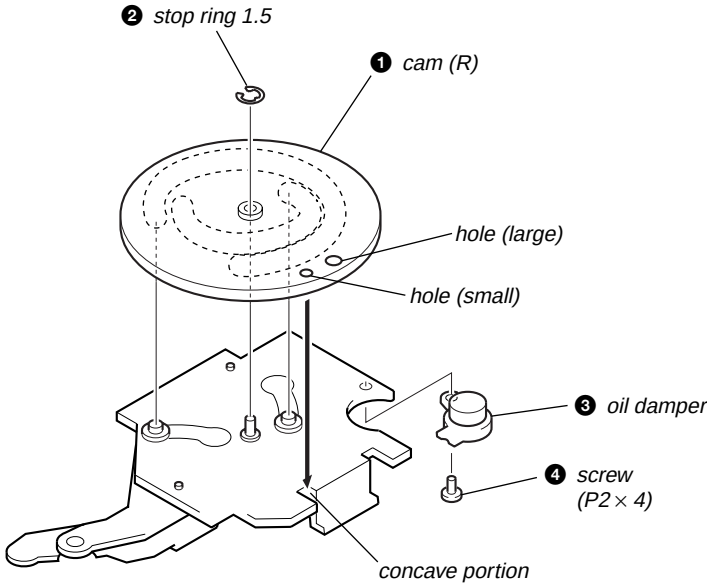
Note: Follow the assembly procedure in the numerical order given.

4-2. MOTOR BLOCK ASSY



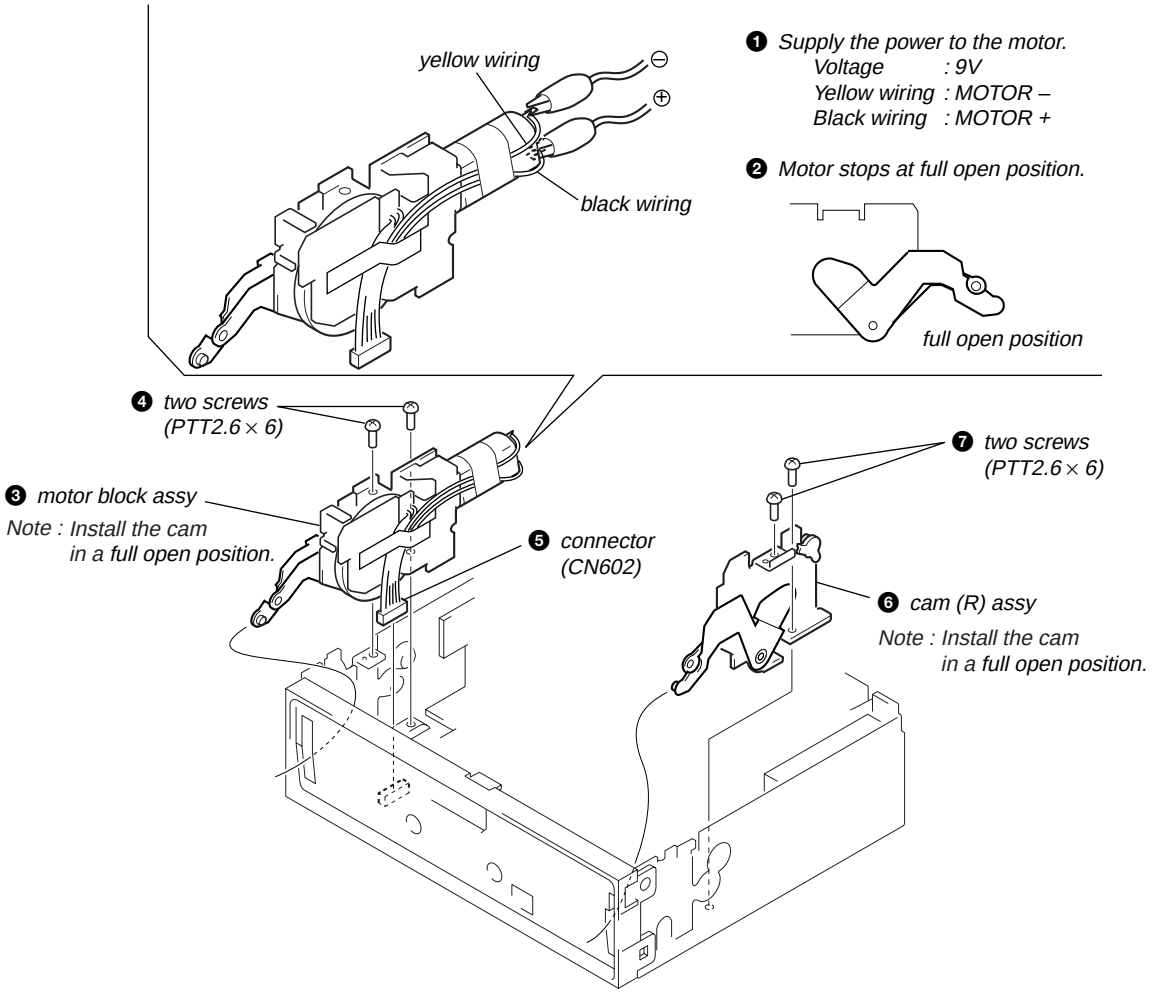
Note: When installing cam (L), adjust the hole (small) and concave portion.

4-3. CAM (R) ASSY



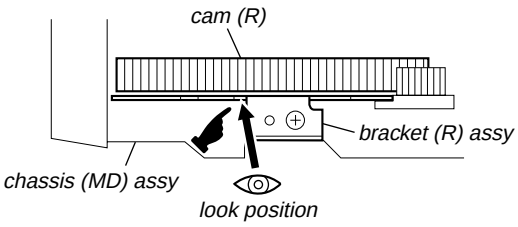
Note: When installing cam (R), adjust the hole (small) and concave portion.

4-4. ADJUSTING PHASE OF MOTOR BLOCK ASSY, CAM (R) ASSY



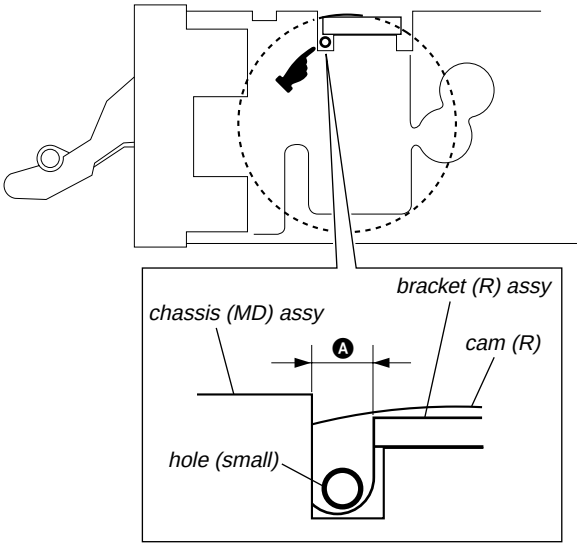
4-5. PHASE CHECK

– Up view –



1. Look into the position pointed by ☛ in the figure from the direction of the arrow.
2. Check that the hole (small) of the cam (R) is within the range of Ⓐ.
3. Check 2 with both L and R side.
   If it is OK in both sides, the cam is in phase.
   (If not, adjust it.)

– Right side view –



SECTION 5
ELECTRICAL ADJUSTMENTS

TEST MODE

This set have the test mode function.

<Set the Test Mode>

1. Turn ON the regulated power supply. (The clock is displayed)
   Note: Press the [OFF] button, if the clock is not displayed.
2. Push the preset [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for more than two seconds.
5. Then the display indicates all lights, the test mode is set.

<Release the Test mode>

1. Push the [OFF] button.

Note:
In the normal mode, after pressing the [OPEN] key for two seconds to set the front panel in detaching position and detaching the display panel is complete, the front panel closes automatically.
But in the test mode, the front panel opens automatically.

MD SECTION

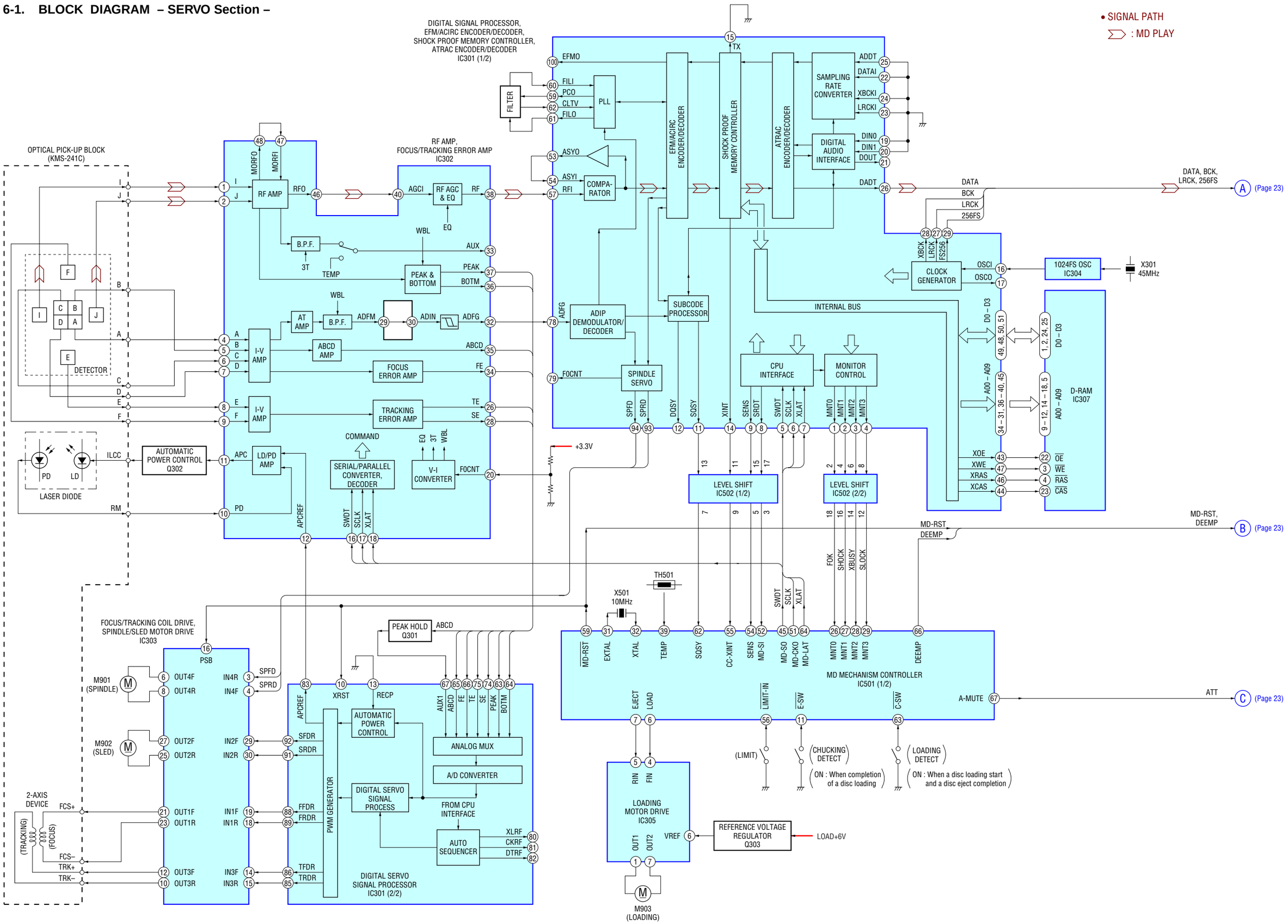
MD section adjustments are done automatically in this set.

TUNER SECTION

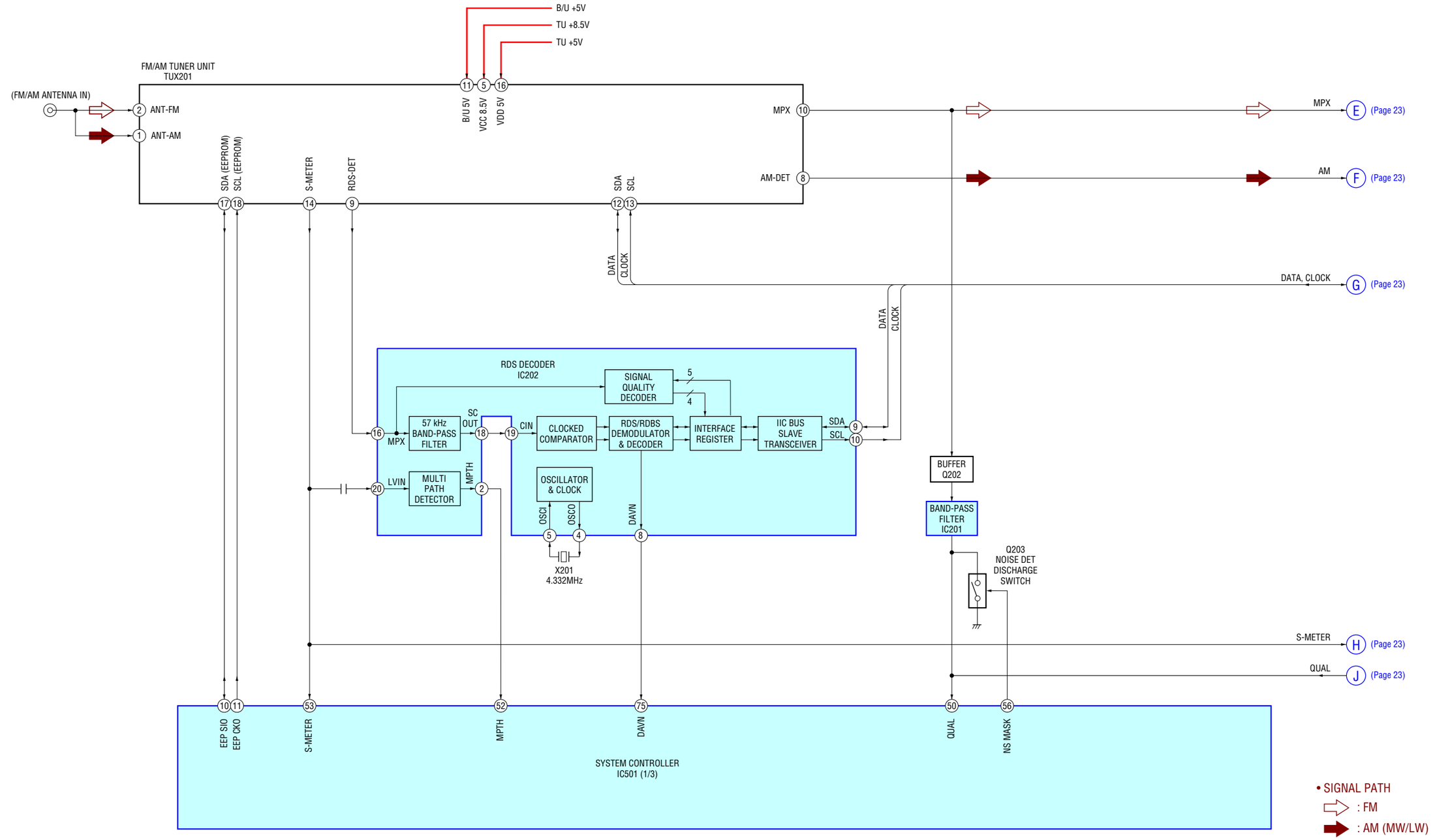
Tuner section adjustments are done automatically in this set.

SECTION 6
DIAGRAMS

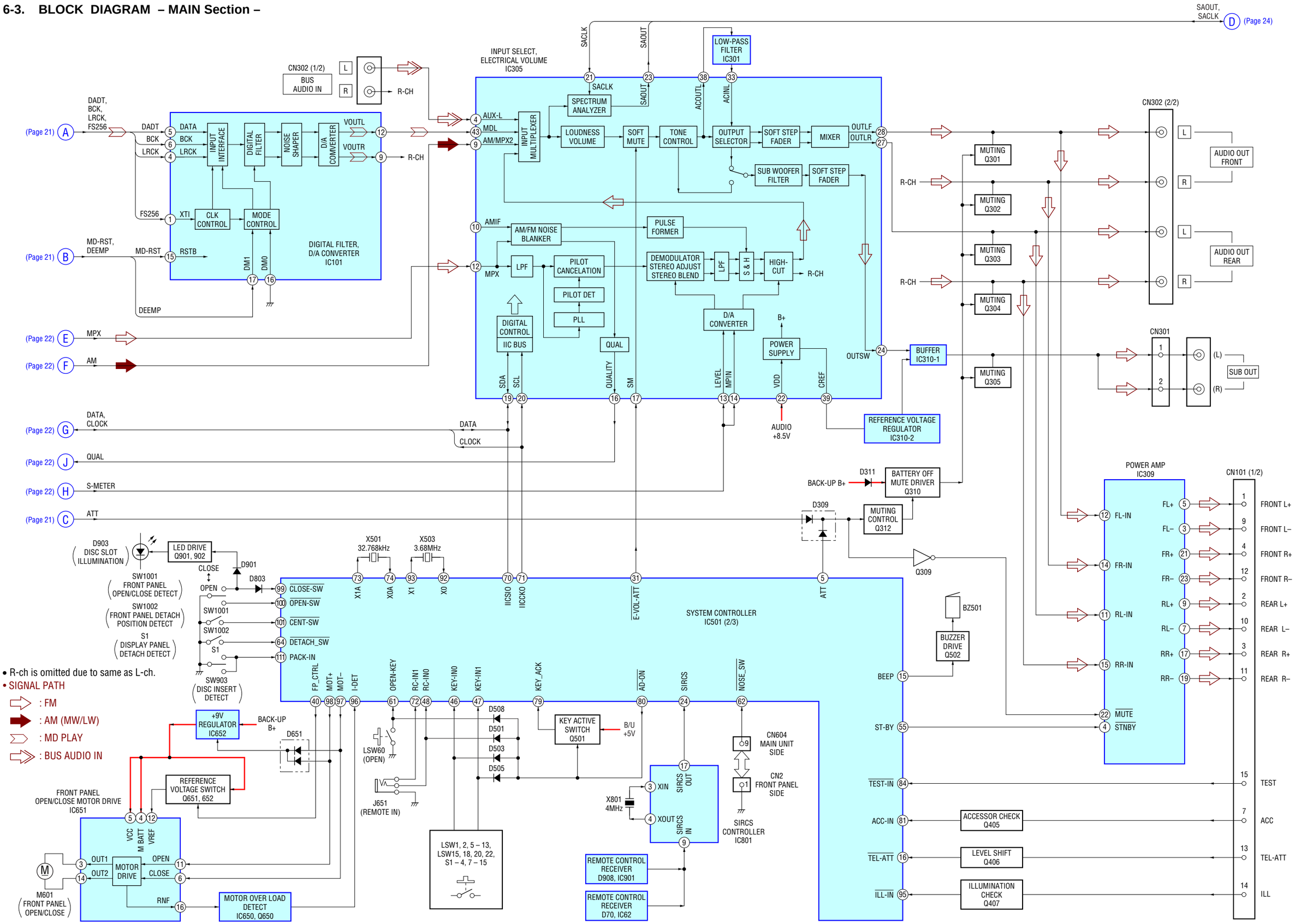
6-1. BLOCK DIAGRAM – SERVO Section –



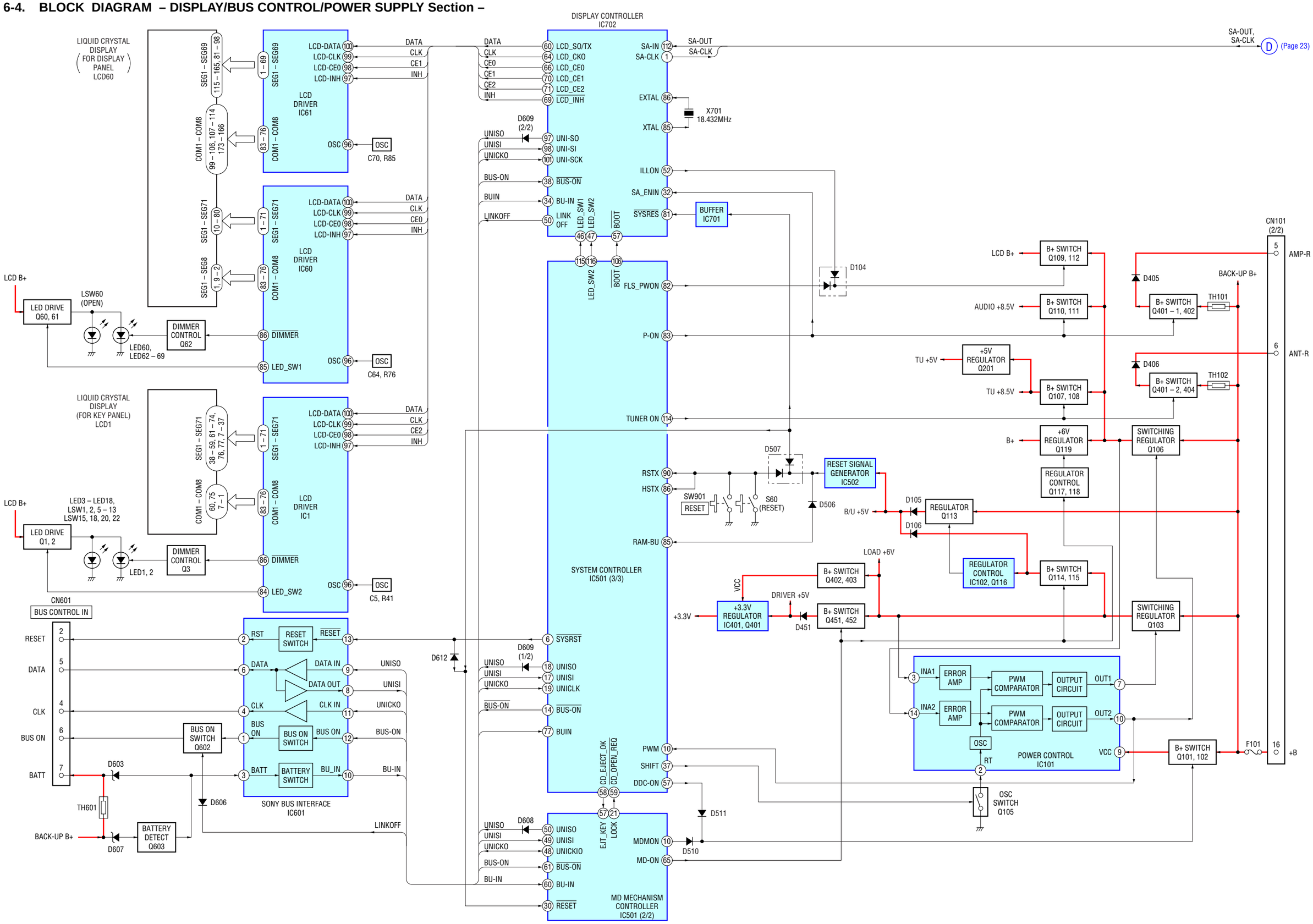
6-2. BLOCK DIAGRAM – TUNER Section –



6-3. BLOCK DIAGRAM – MAIN Section –



6-4. BLOCK DIAGRAM – DISPLAY/BUS CONTROL/POWER SUPPLY Section –



6-5. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ● : Through hole.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Note on Schematic Diagram:

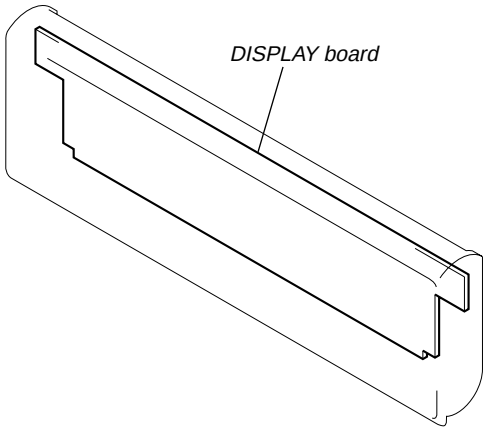
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

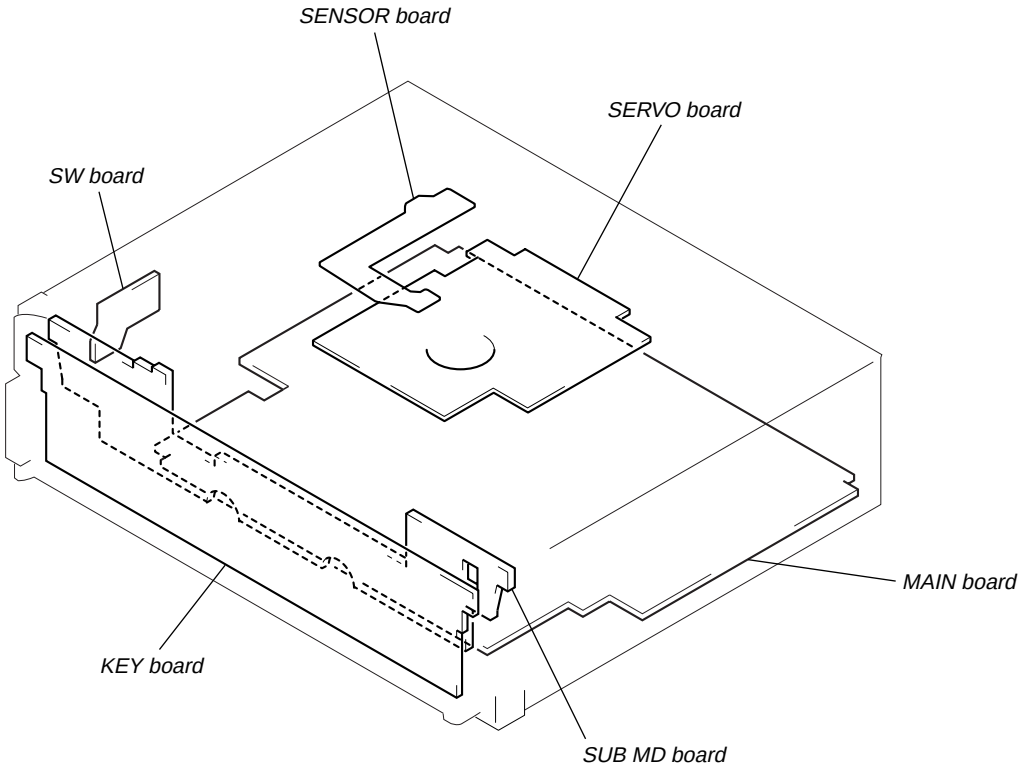
- ▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - : MD PLAY
  - : FM
  - : AM (MW/LW)
  - : BUS AUDIO IN

- **Circuit Boards Location**

  - **FRONT PANEL (DSPL) SECTION**

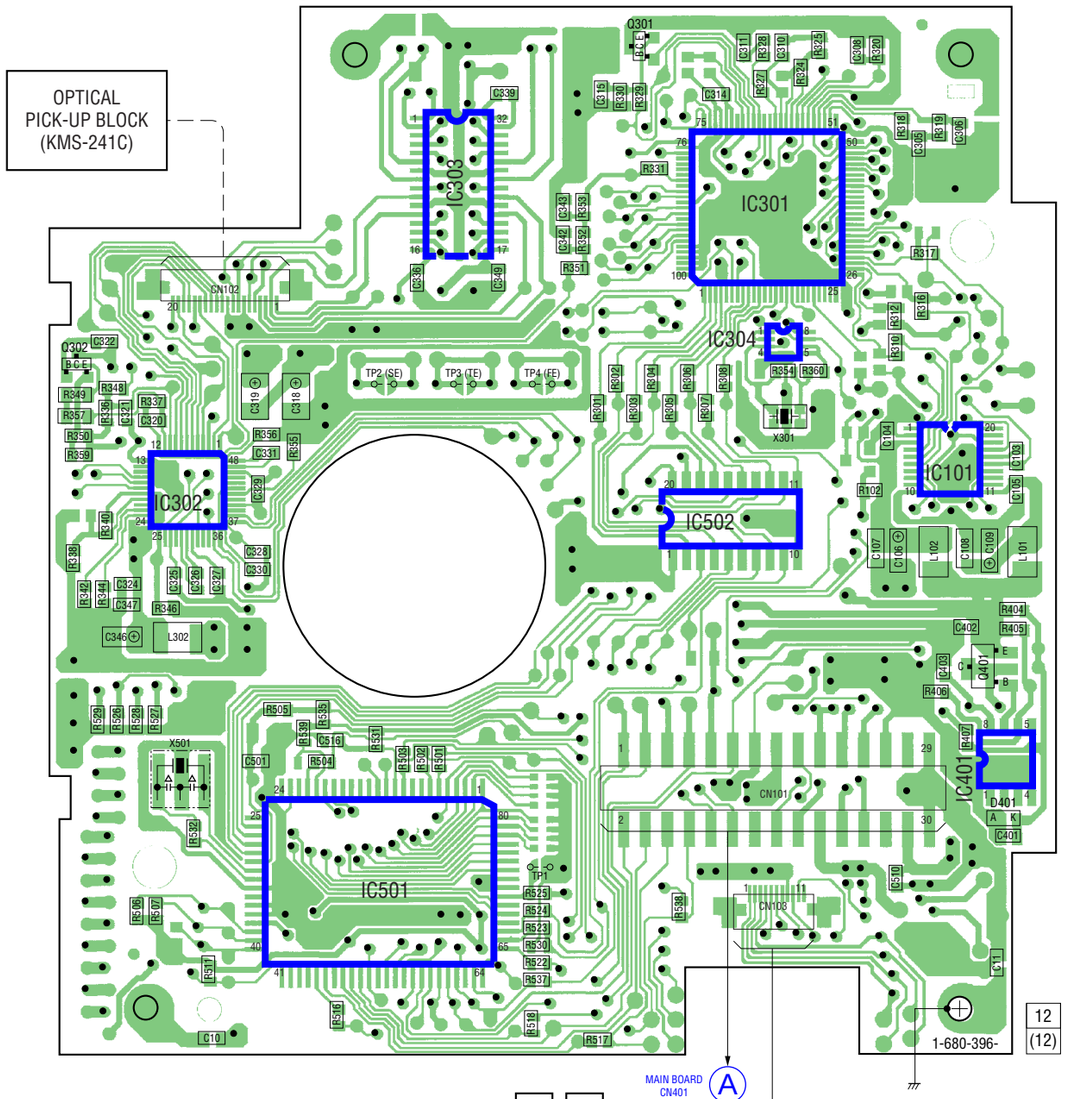


  - **GENERAL SECTION**

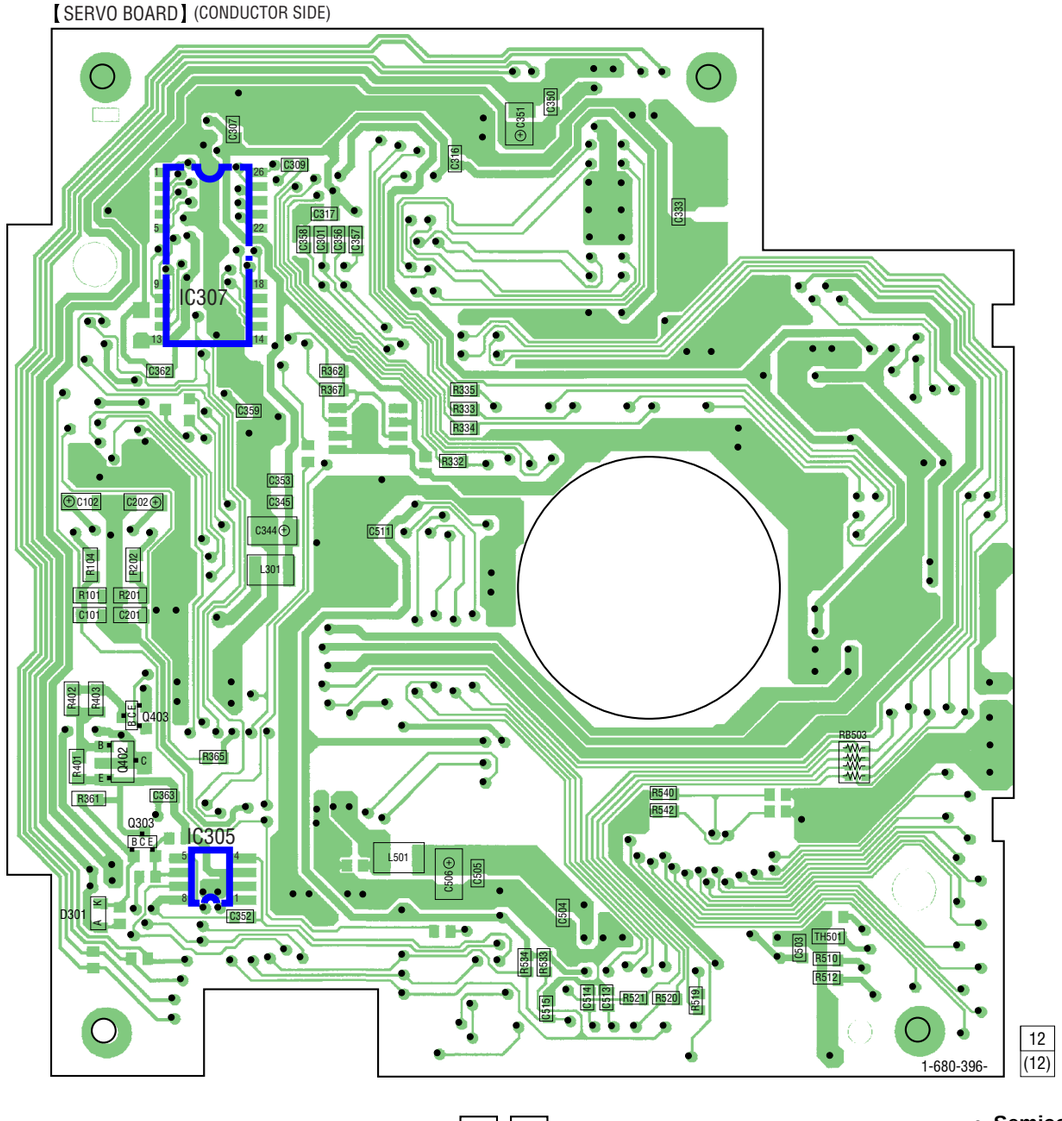


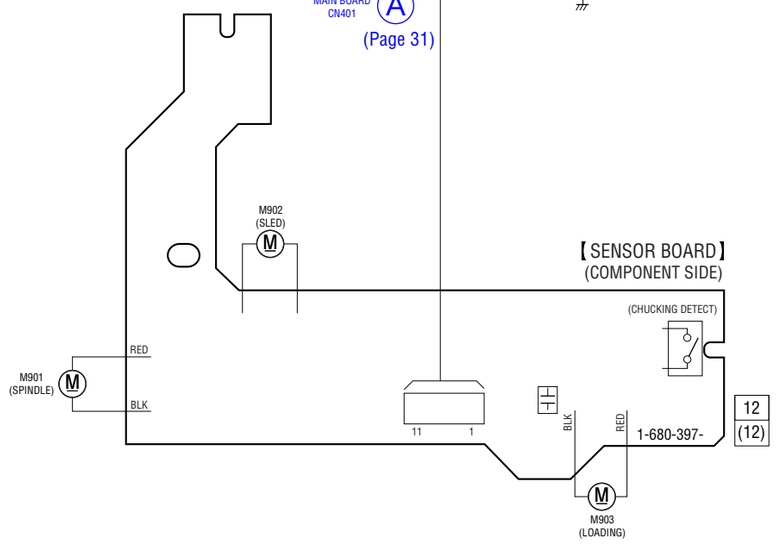
6-6. PRINTED WIRING BOARDS – SERVO Section – • See page 26 for Circuit Boards Location.

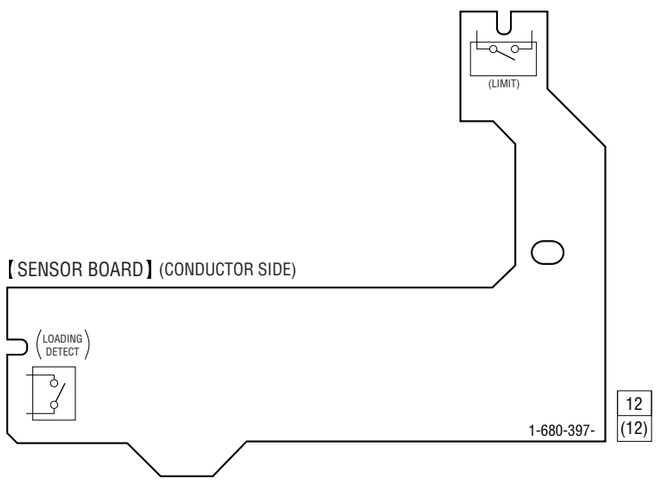
【SERVO BOARD】(COMPONENT SIDE)



【SERVO BOARD】(CONDUCTOR SIDE)



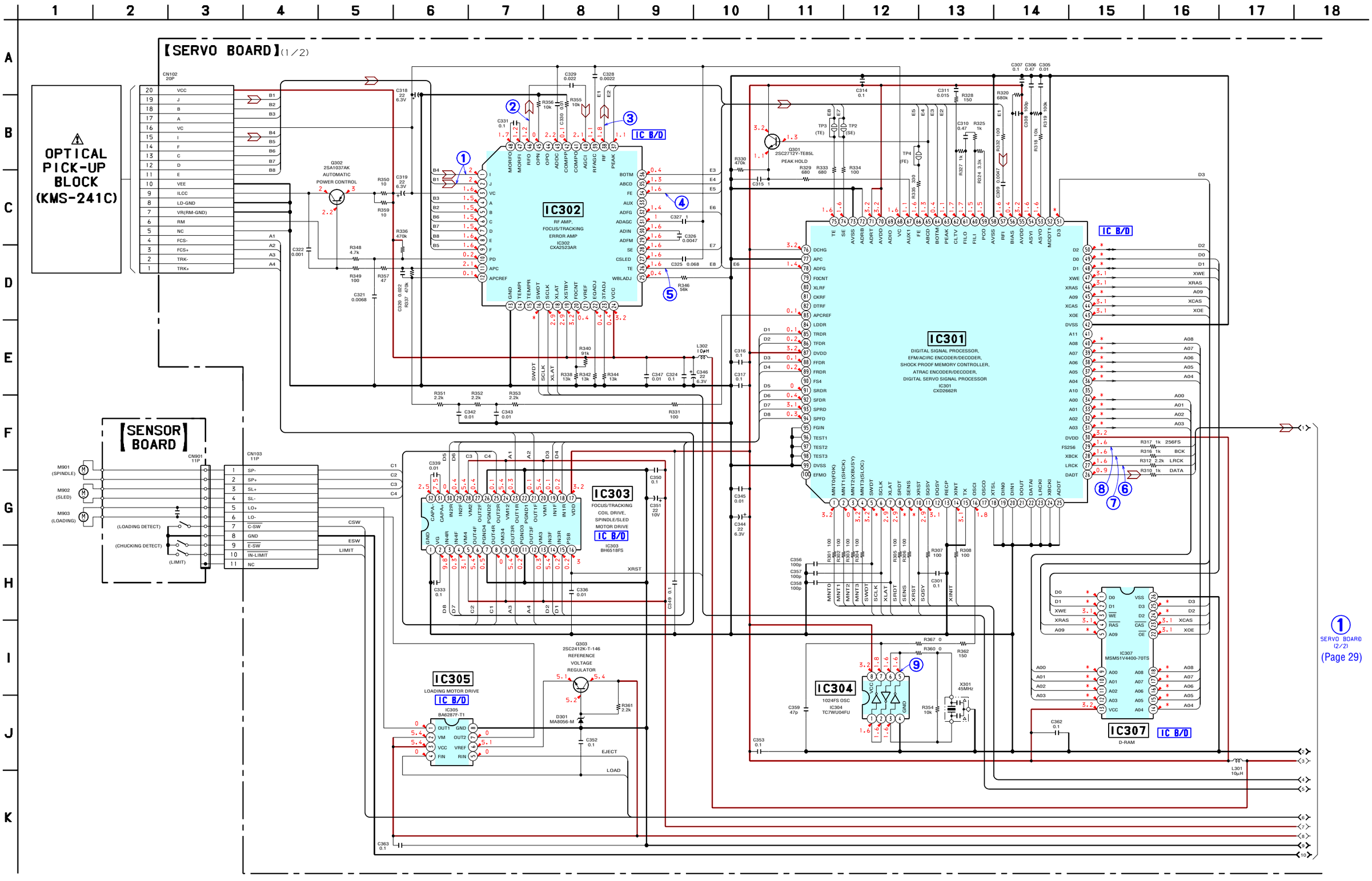




- **Semiconductor Location**

Ref. No.	Location
D301	G-9
D401	F-7
IC101	D-7
IC301	B-6
IC302	D-2
IC303	B-4
IC304	C-6
IC305	G-10
IC307	B-10
IC401	F-7
IC501	G-3
IC502	D-6
Q301	A-5
Q302	C-1
Q303	F-9
Q401	E-7
Q402	F-9
Q403	E-9

6-7. SCHEMATIC DIAGRAM – SERVO Section (1/2) – • See page 42 for Waveforms. • See page 43 for IC Block Diagrams.

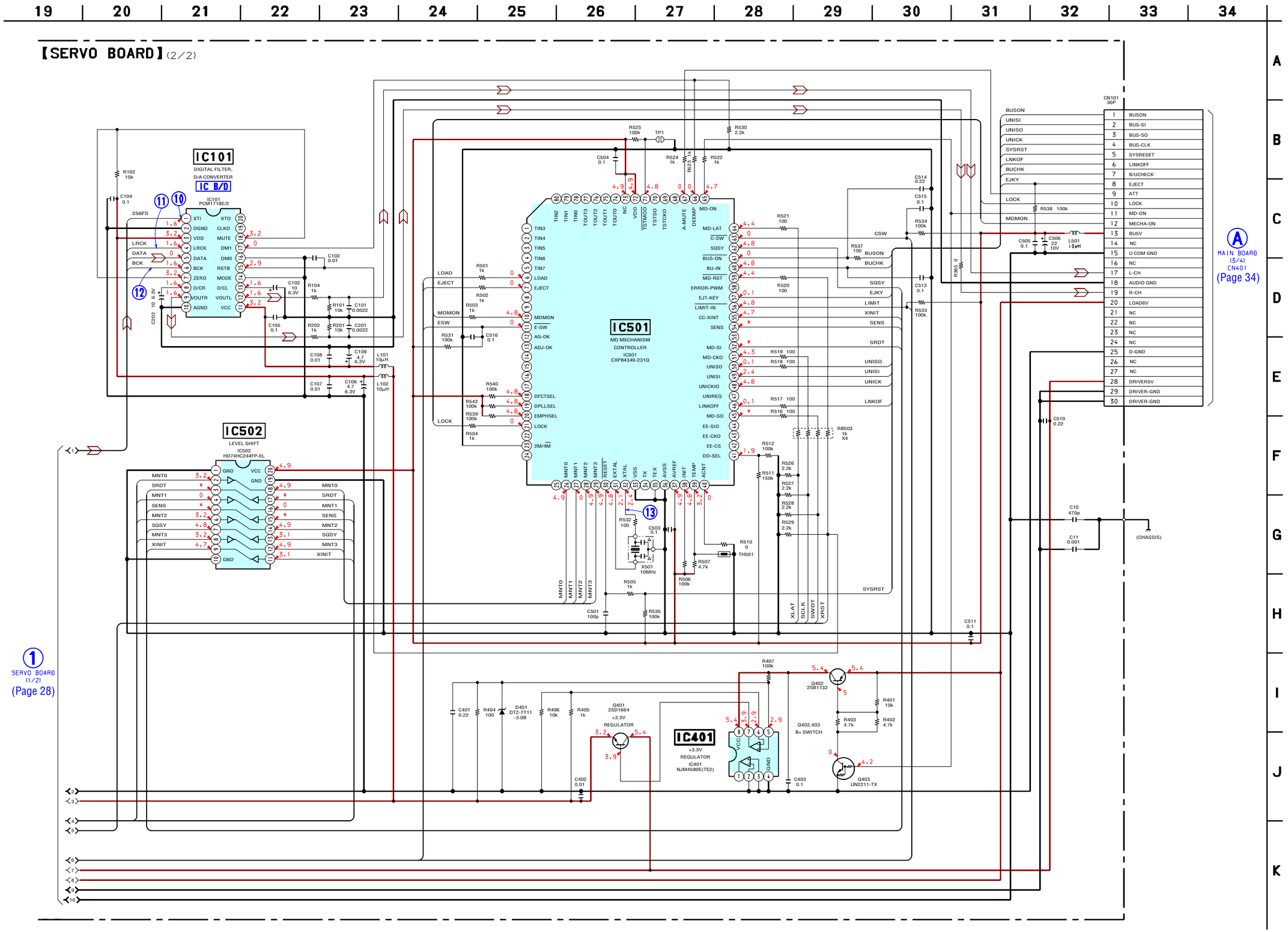


- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : MD PLAY
  ∗ : Impossible to measure

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-8. SCHEMATIC DIAGRAM – SERVO Section (2/2) –

• See page 42 for Waveforms. • See page 43 for IC Block Diagram.



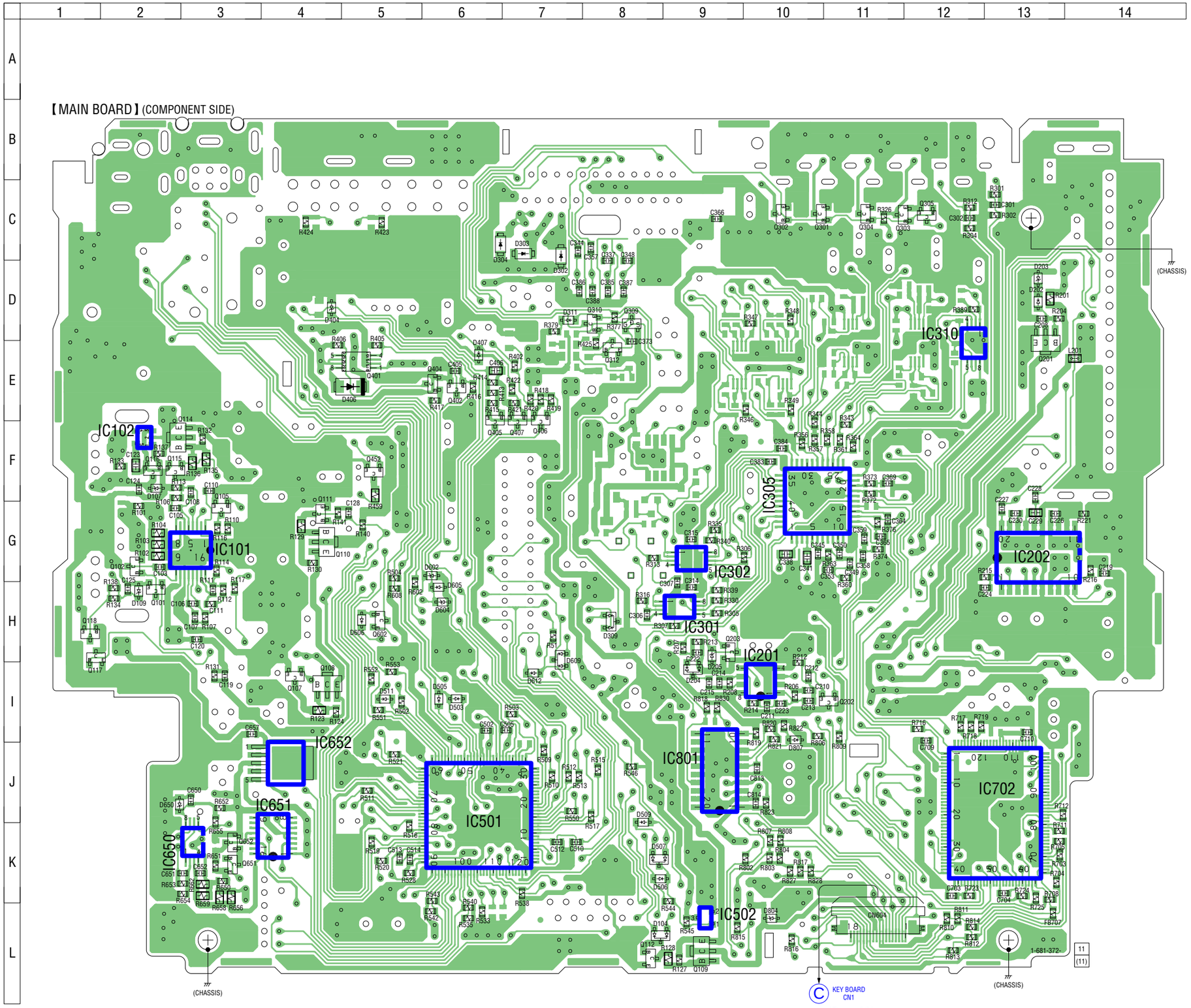
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : MD PLAY
  * : Impossible to measure

6-9. PRINTED WIRING BOARD – MAIN Section (1/2) –

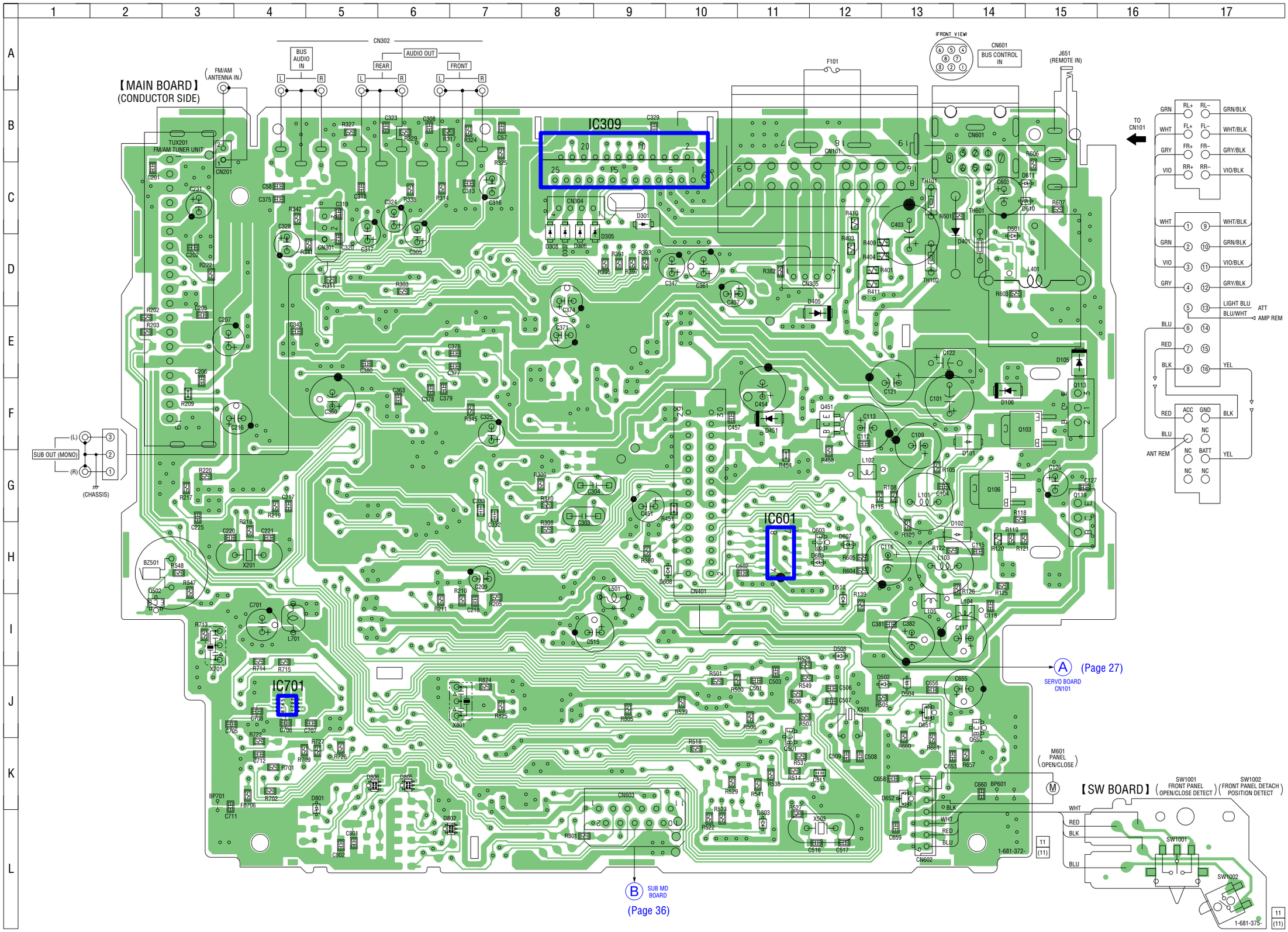
• See page 26 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D104	L-8	IC650	K-3
D107	F-2	IC651	K-4
D109	H-9	IC652	J-2
D202	D-13	IC702	J-13
D203	D-13	IC801	J-9
D204	I-9		
D205	H-9	Q101	H-2
D302	C-7	Q102	G-2
D303	C-7	Q105	G-3
D304	C-6	Q107	I-4
D309	H-8	Q108	I-4
D311	D-7	Q109	L-9
D404	D-4	Q110	G-4
D406	E-5	Q111	G-4
D407	E-6	Q112	L-8
D503	I-6	Q114	F-2
D505	I-6	Q115	F-2
D506	K-8	Q116	F-2
D507	K-8	Q117	H-1
D509	J-8	Q118	H-1
D511	I-5	Q201	E-13
D602	G-6	Q202	I-11
D604	H-6	Q203	H-9
D605	H-6	Q301	C-10
D606	H-5	Q302	C-10
D609	H-7	Q303	C-11
D612	I-7	Q304	C-11
D650	J-2	Q305	C-12
D804	L-10	Q309	D-8
D807	I-10	Q310	D-8
		Q312	E-8
IC101	G-3	Q401	E-5
IC102	F-2	Q402	E-6
IC201	I-10	Q404	E-6
IC202	G-13	Q405	E-6
IC301	H-9	Q406	E-7
IC302	G-9	Q407	E-7
IC305	F-10	Q452	F-5
IC310	E-12	Q602	H-5
IC501	J-6	Q651	K-3
IC502	L-9	Q652	K-3



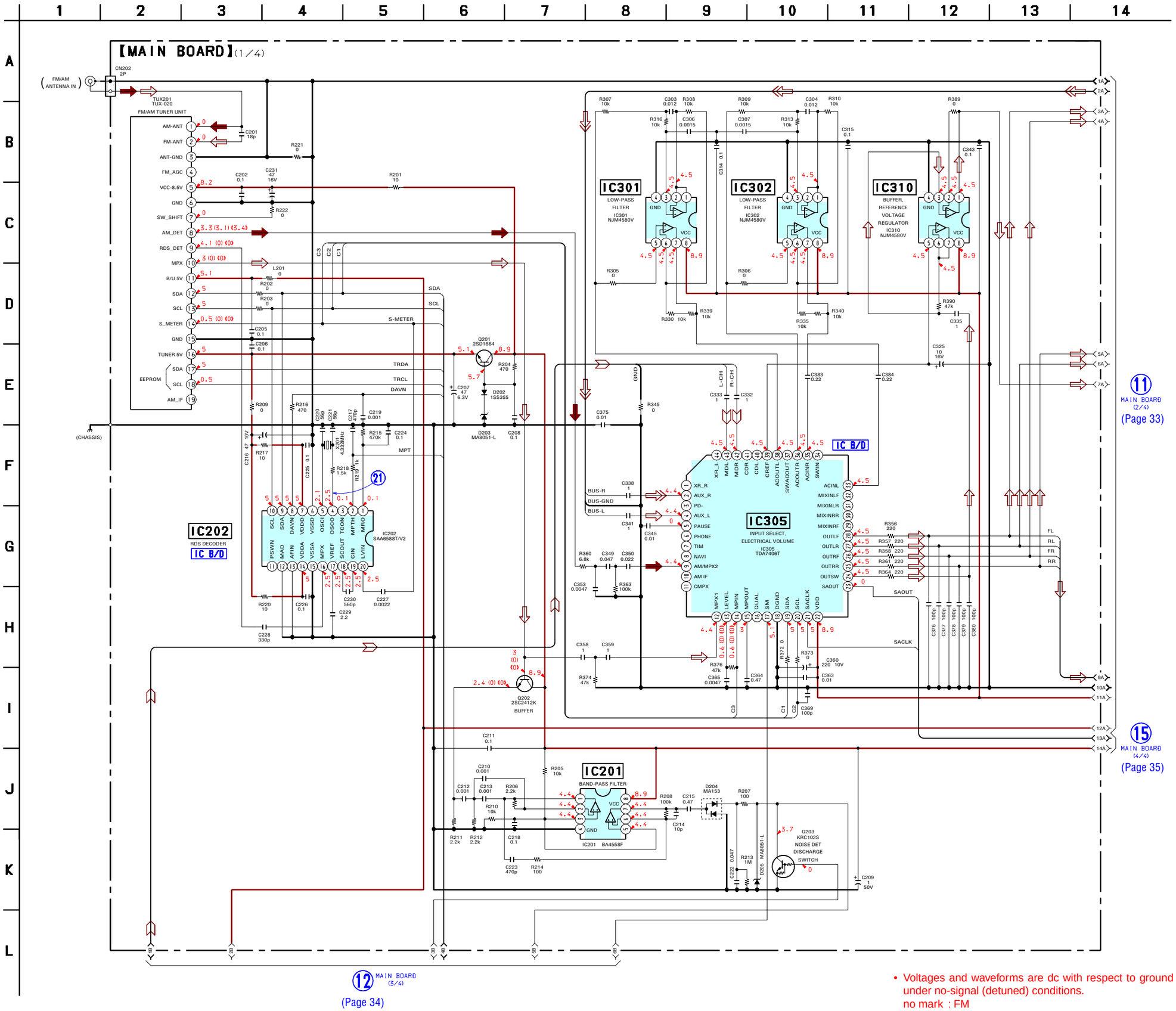
6-10. PRINTED WIRING BOARDS – MAIN Section (2/2) – • See page 26 for Circuit Boards Location.



- **Semiconductor Location**

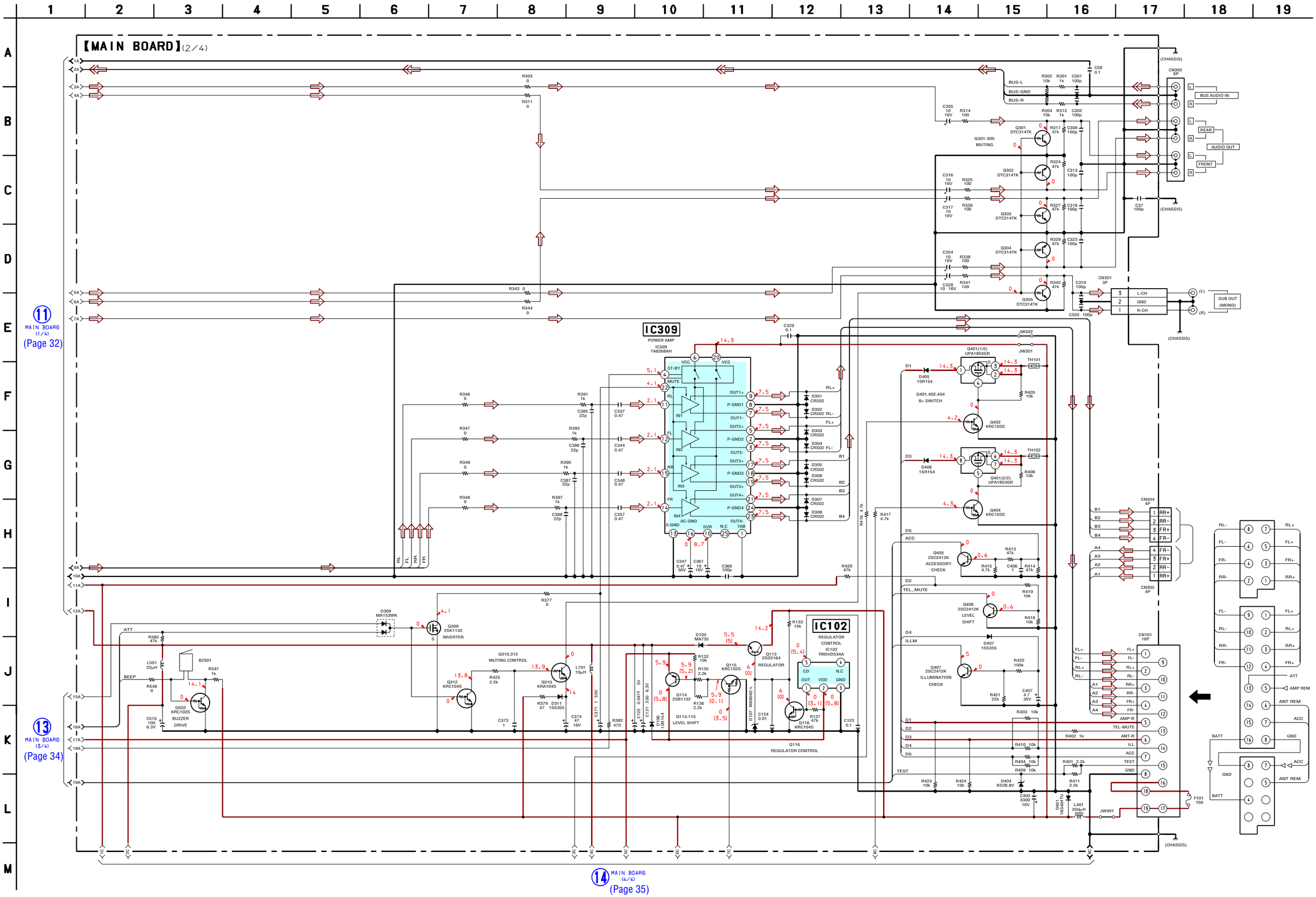
Ref. No.	Location
D101	F-14
D102	H-14
D105	E-15
D106	F-14
D301	C-9
D305	C-9
D306	C-8
D307	C-8
D308	C-8
D401	C-14
D405	E-12
D451	F-11
D501	D-14
D502	J-13
D504	J-13
D508	I-12
D510	I-12
D603	H-12
D607	H-12
D608	H-10
D610	C-15
D611	C-15
D651	J-13
D652	K-13
D801	K-5
D802	L-7
D803	L-11
D805	K-6
D806	K-5
IC309	B-9
IC601	H-11
IC701	J-4
Q103	F-15
Q106	G-14
Q113	F-15
Q119	G-15
Q451	F-12
Q501	J-11
Q502	I-2
Q603	H-12
Q650	J-14

6-11. SCHEMATIC DIAGRAM – MAIN Section (1/4) – • See page 42 for Waveform. • See page 43 for IC Block Diagrams.



- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW
  ⟨⟨ ⟩⟩ : LW

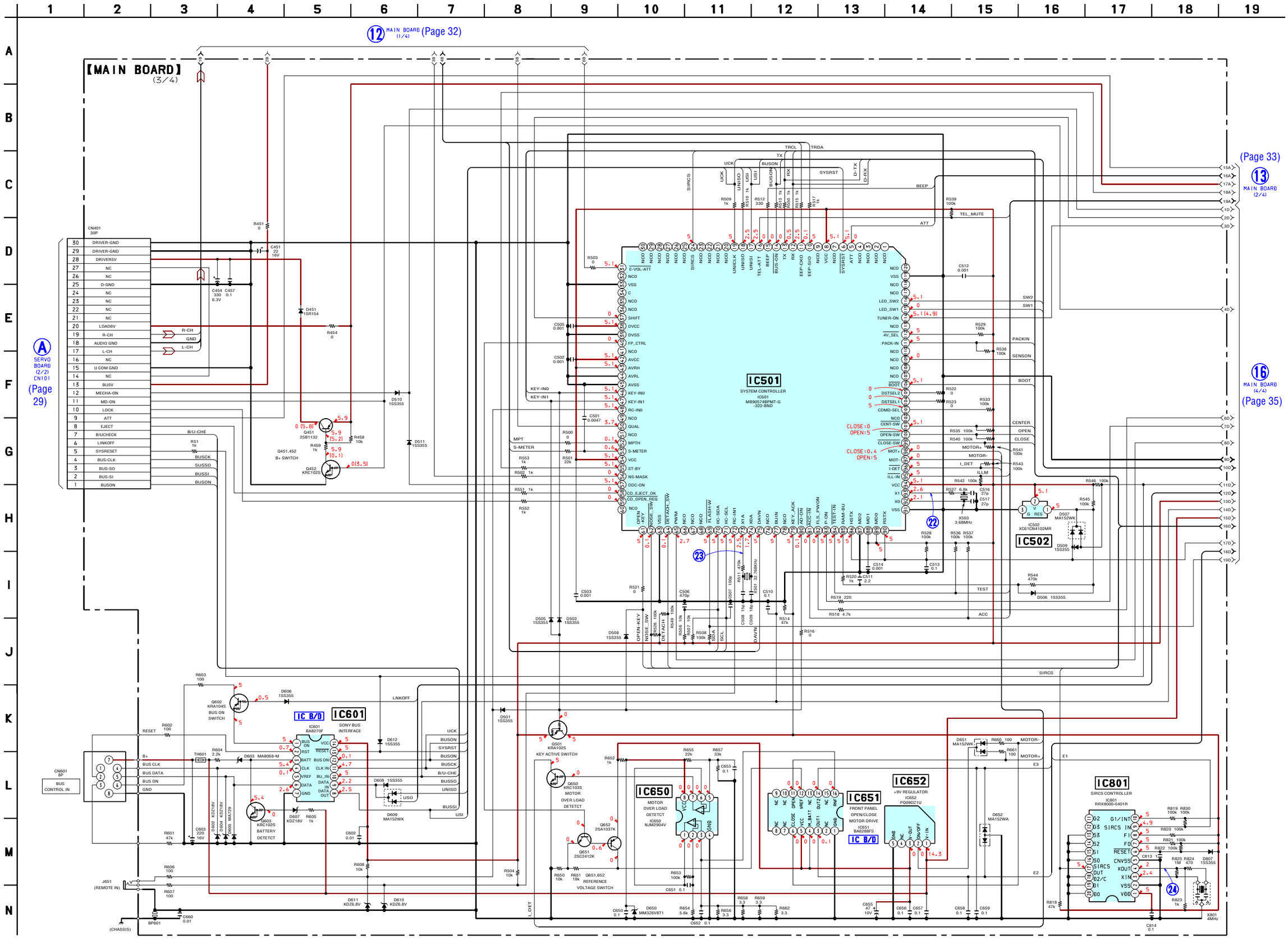
6-12. SCHEMATIC DIAGRAM – MAIN Section (2/4) –



- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  [ ] : MD PLAY

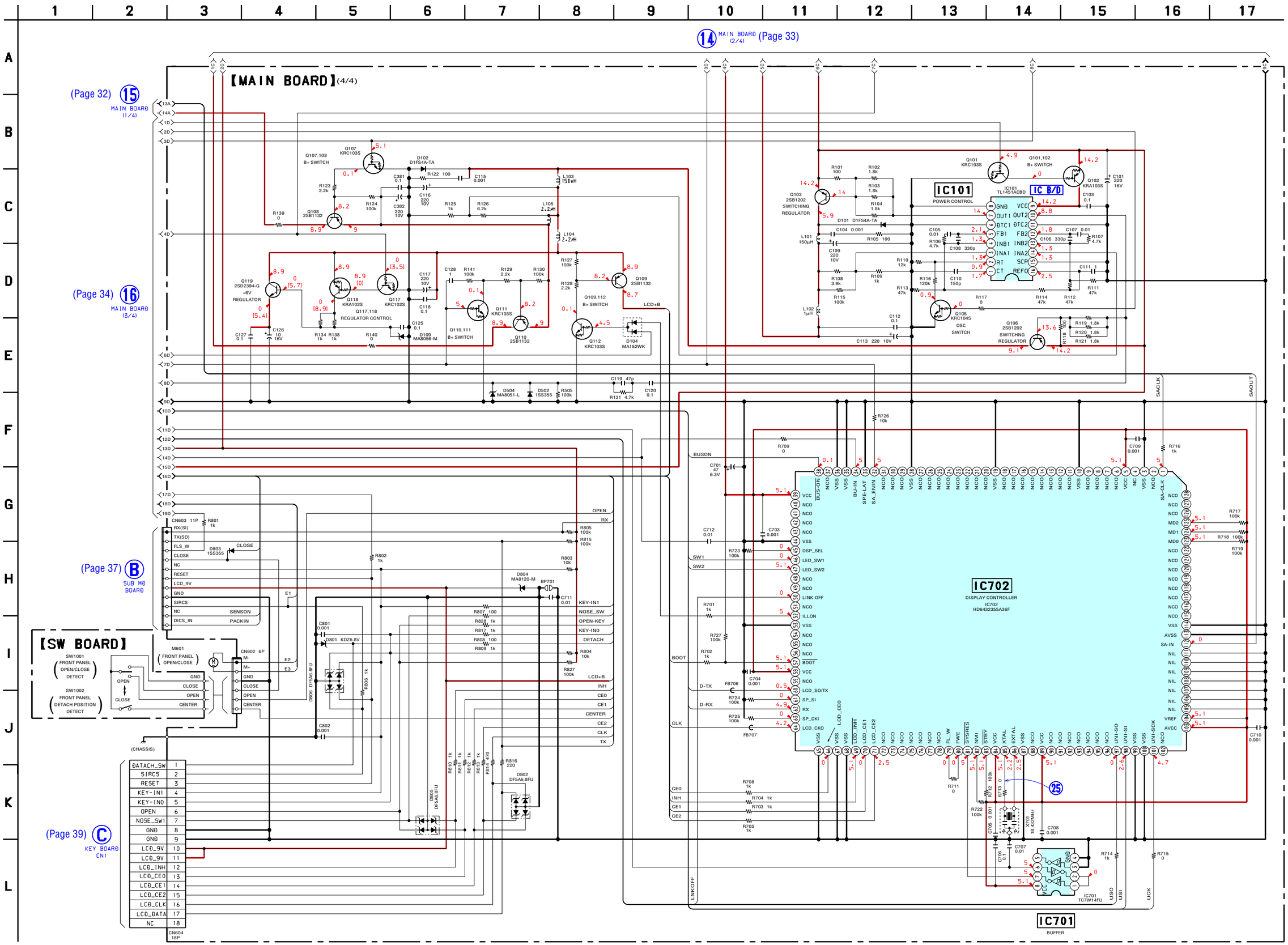
6-13. SCHEMATIC DIAGRAM – MAIN Section (3/4) –

• See page 42 for Waveforms. • See page 43 for IC Block Diagrams.



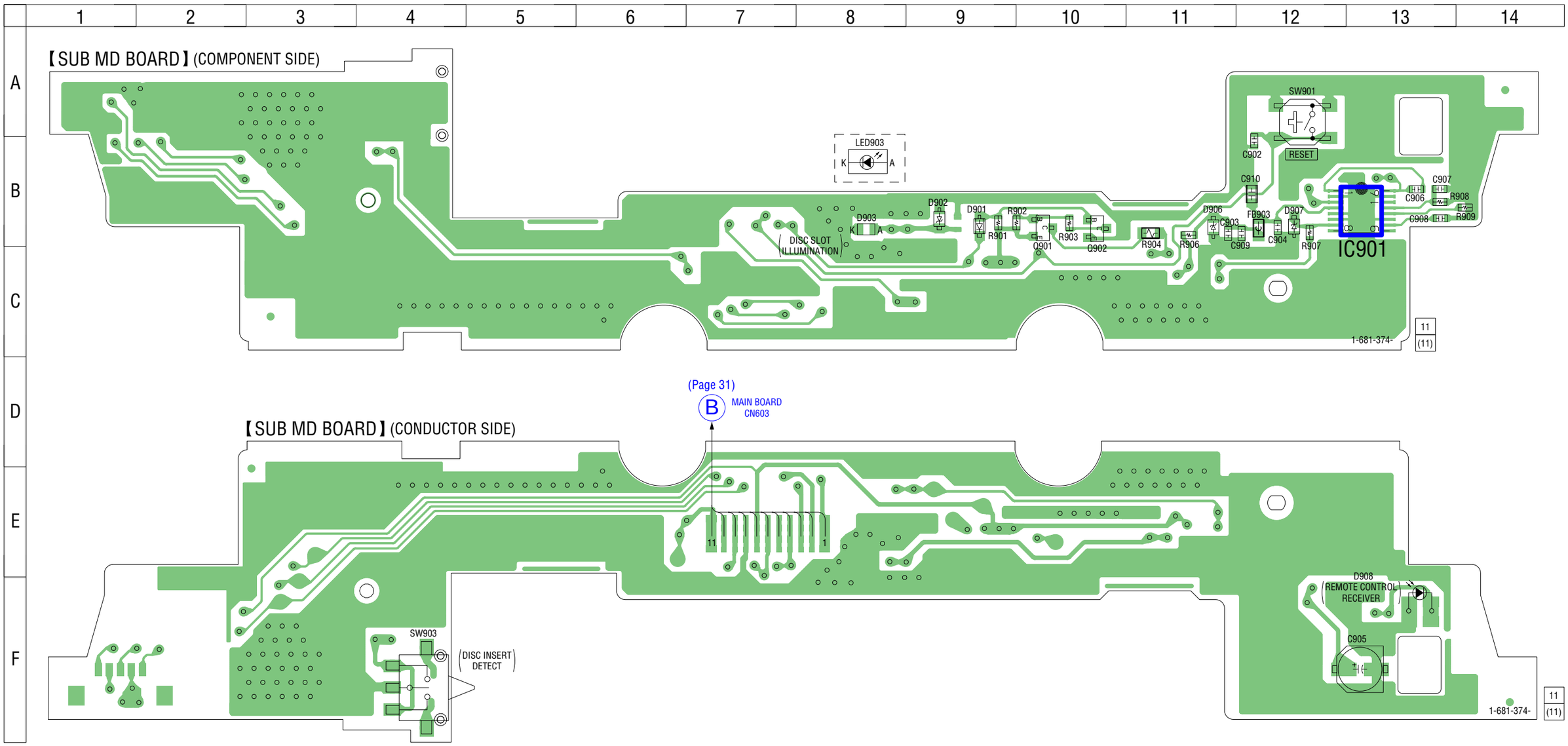
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  [ ] : MD PLAY

6-14. SCHEMATIC DIAGRAM – MAIN Section (4/4) – • See page 42 for Waveform. • See page 43 for IC Block Diagram.



- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  [ ] : MD PLAY

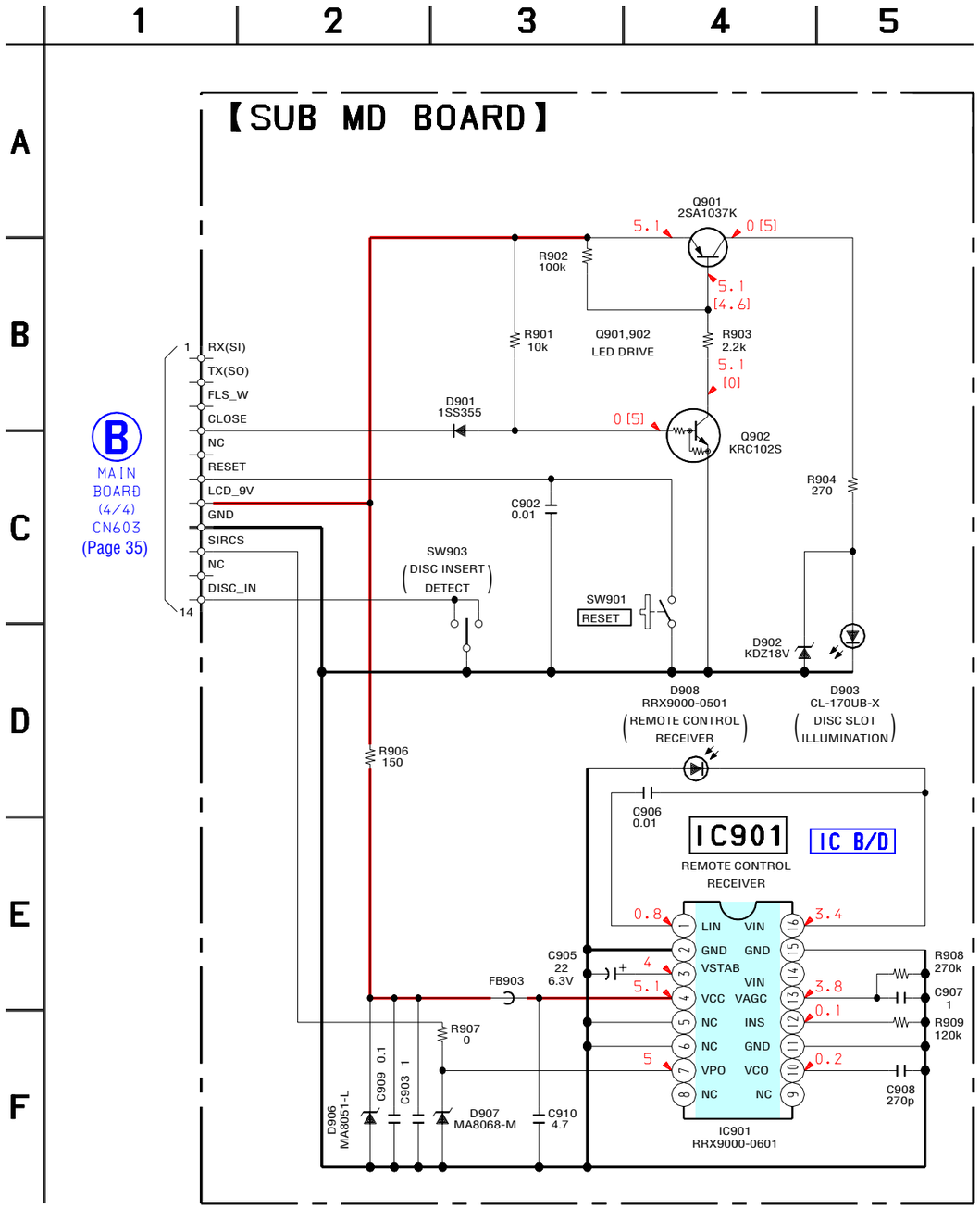
6-15. PRINTED WIRING BOARD – SUB MD Board – • See page 26 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
D901	B-9
D902	B-9
D903	B-8
D906	B-11
D907	B-12
D908	F-13
IC901	B-13
Q901	B-10
Q902	B-10

6-16. SCHEMATIC DIAGRAM – SUB MD Board – • See page 43 for IC Block Diagram.

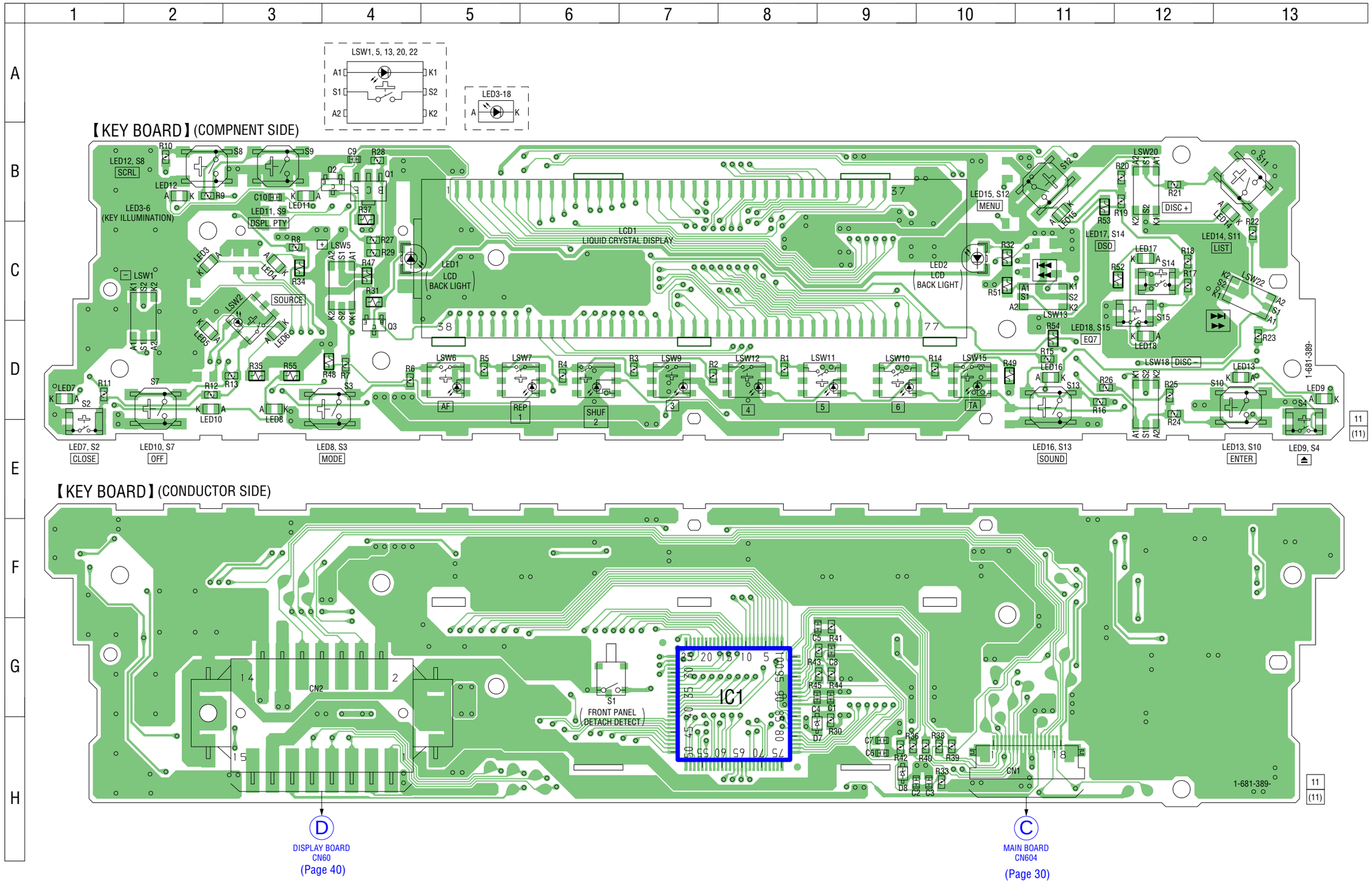


• Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM

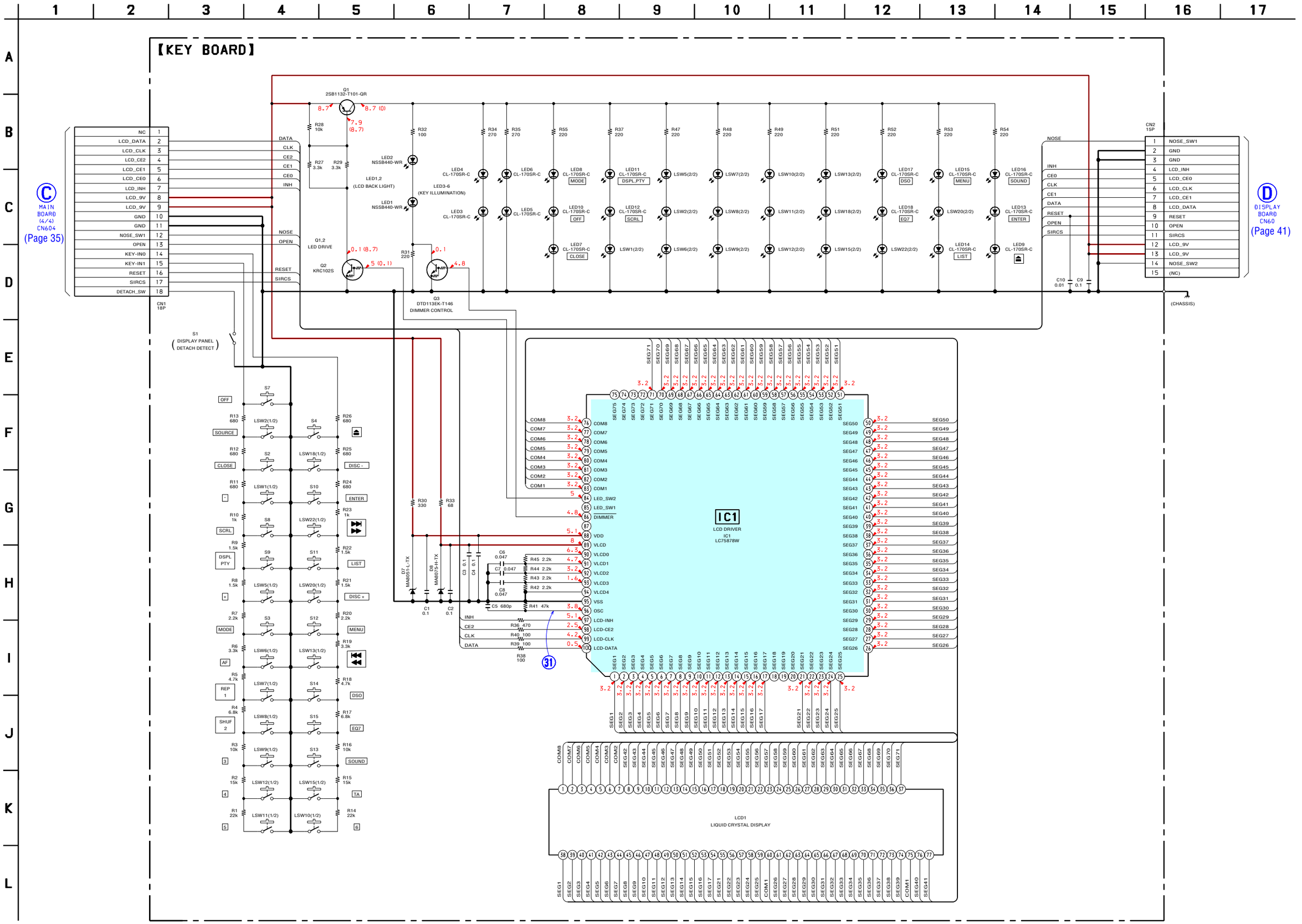
6-17. PRINTED WIRING BOARD – KEY Board – • See page 26 for Circuit Boards Location.

- **Semiconductor Location**

Ref. No.	Location
D7	H-8
D8	H-9
IC1	G-8
LED1	C-4
LED2	C-10
LED3	D-2
LED4	C-3
LED5	D-2
LED6	D-3
LED7	D-1
LED8	D-3
LED9	D-13
LED10	D-10
LED11	B-3
LED12	B-2
LED13	D-13
LED14	B-13
LED15	B-11
LED16	D-11
LED17	C-12
LED18	D-12
Q1	B-4
Q2	B-4
Q3	D-4

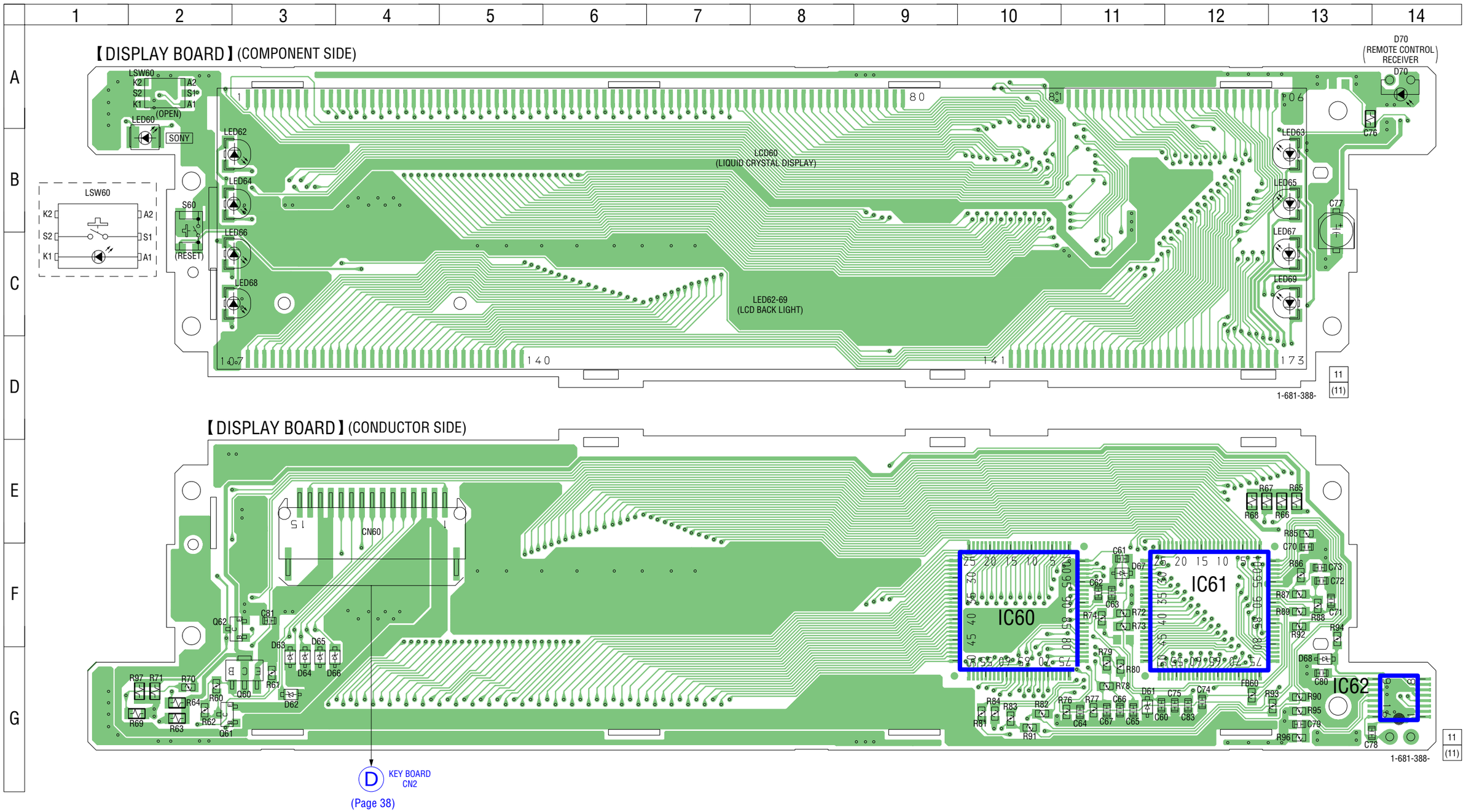


6-18. SCHEMATIC DIAGRAM – KEY Board – • See page 42 for Waveform.



- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM

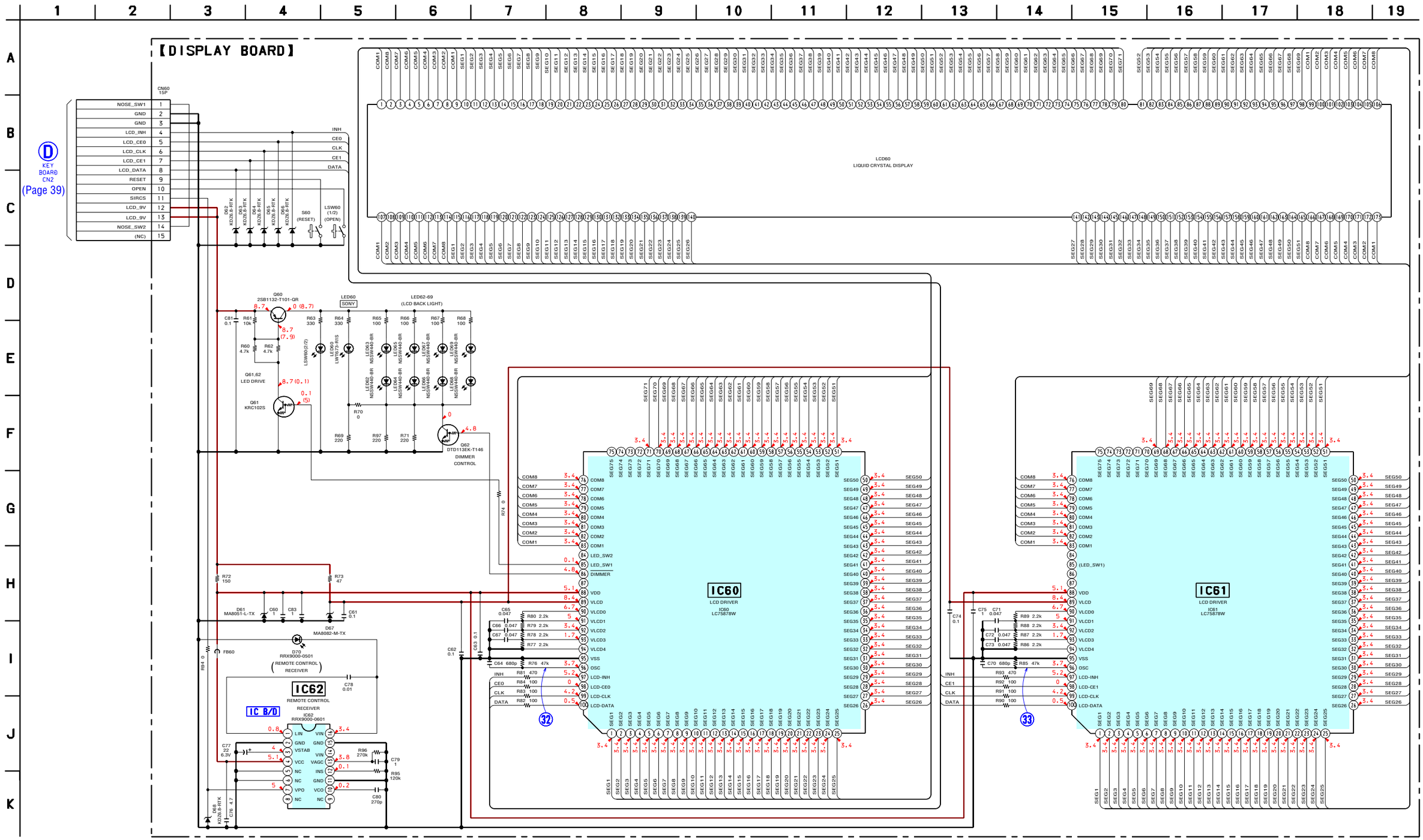
6-19. PRINTED WIRING BOARD – DISPLAY Board – • See page 26 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D61	G-11	LED60	B-2
D62	G-3	LED62	B-3
D63	G-3	LED63	B-13
D64	G-3	LED64	B-3
D65	G-3	LED65	B-13
D66	G-3	LED66	C-3
D67	F-11	LED67	C-13
D68	G-13	LED68	C-3
D70	A-14	LED69	C-13
IC60	F-10	Q60	G-3
IC61	F-12	Q61	G-2
IC62	G-14	Q62	F-3

6-20. SCHEMATIC DIAGRAM – DISPLAY Board – • See page 42 for Waveforms. • See page 43 for IC Block Diagram.

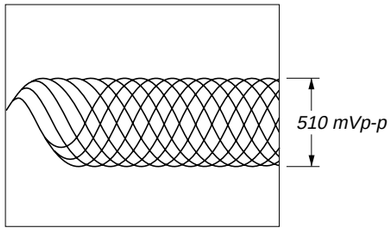


- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM

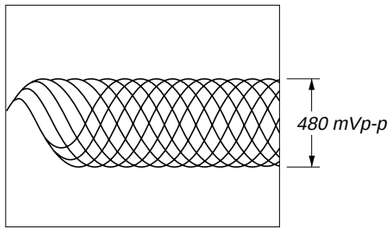
• **Waveforms**

– SERVO Board –

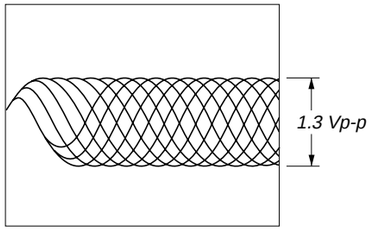
❶ IC302 ①, ② (I, J) (MD Play Mode)



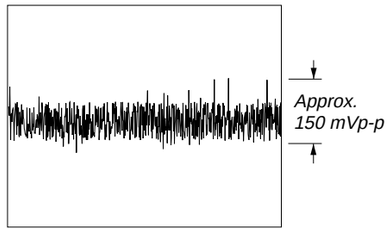
❷ IC302 ㊻ (RFO) (MD Play Mode)



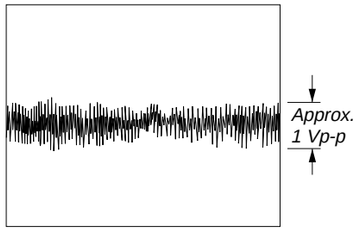
❸ IC302 ㊳ (RF) (MD Play Mode)



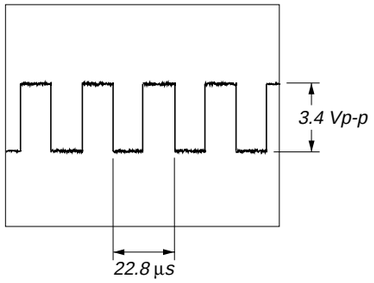
❹ IC302 ㉞ (FE) (MD Play Mode)



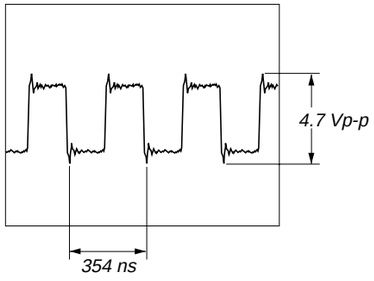
❺ IC302 ㉖ (TE) (MD Play Mode)



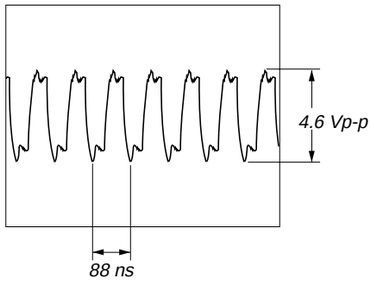
❻ IC301 ㉗ (LRCK) (MD Play Mode)



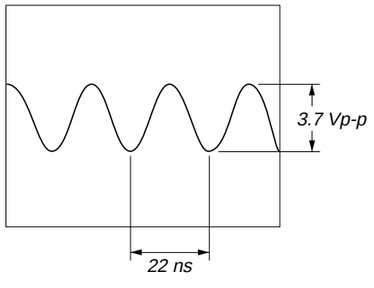
❼ IC301 ㉘ (XBCK) (MD Play Mode)



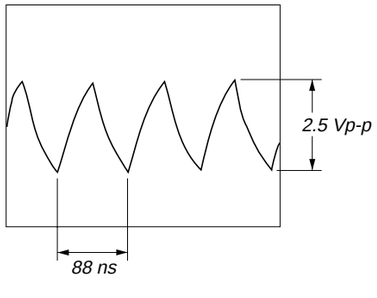
❽ IC301 ㉙ (FS256) (MD Play Mode)



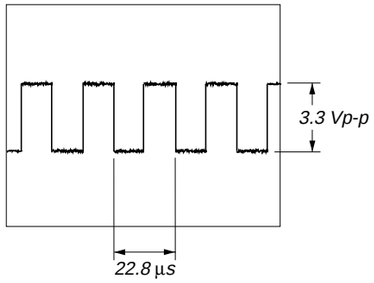
❾ IC304 ⑤ (MD Play Mode)



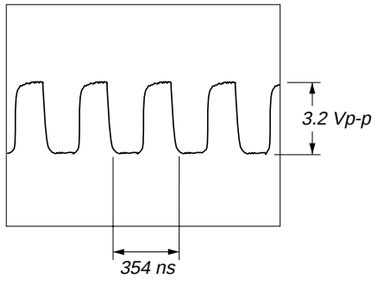
❿ IC101 ① (XTI) (MD Play Mode)



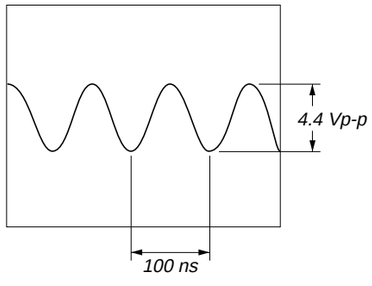
⓫ IC101 ④ (LRCK) (MD Play Mode)



⓬ IC101 ⑥ (BCK) (MD Play Mode)

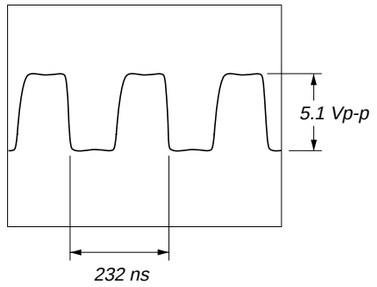


⓭ IC501 ㉜ (XTAL)

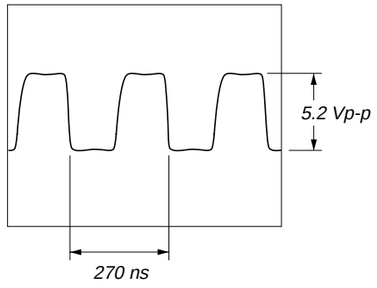


– MAIN Board –

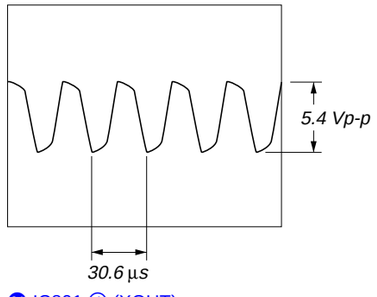
㉑ IC202 ④ (OSCO)



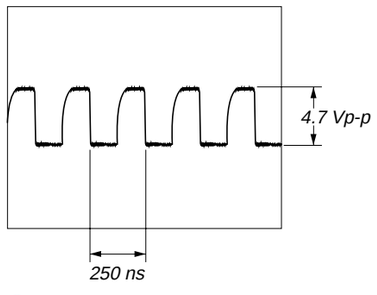
㉒ IC501 ㉝ (X1)



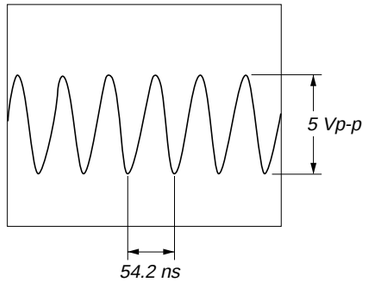
㉓ IC501 ㉝ (X1A)



㉔ IC801 ④ (XOUT)

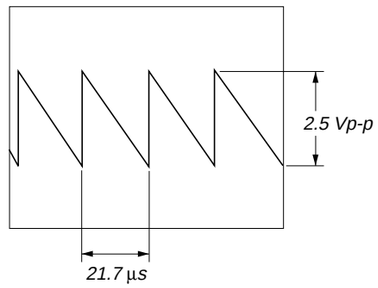


㉕ IC702



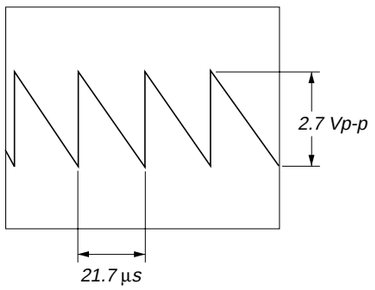
– KEY Board –

㉛ IC1 ㊻ (OSC)

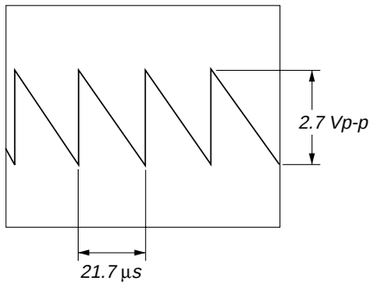


– DISPLAY Board –

㉜ IC60 ㊻ (OSC)

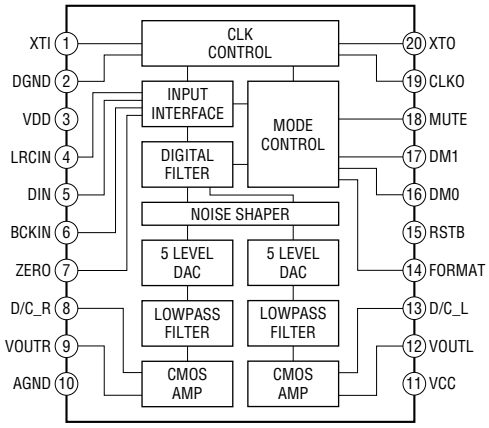


㉝ IC61 ㊻ (OSC)

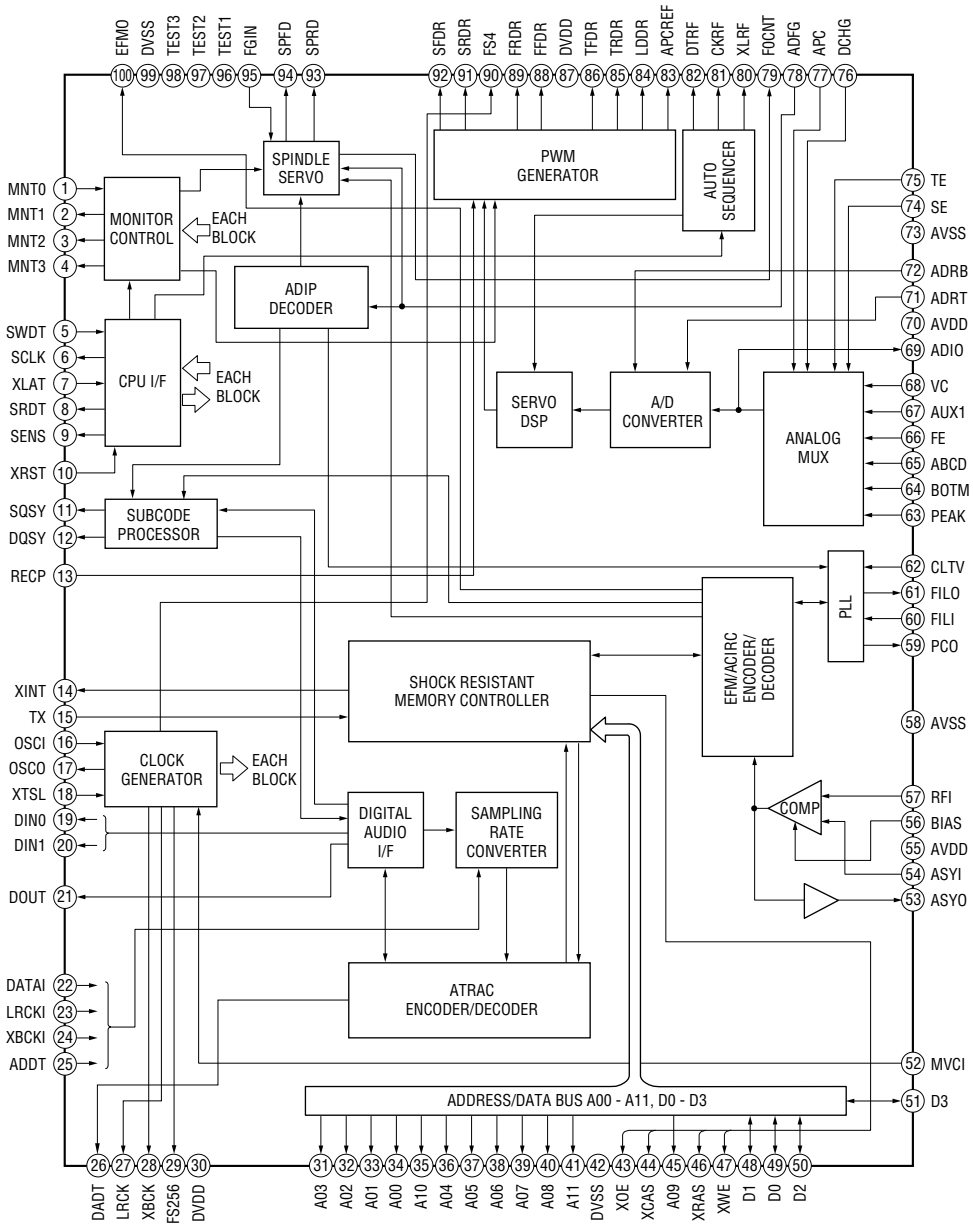


• **IC Block Diagrams**
– SERVO Board –

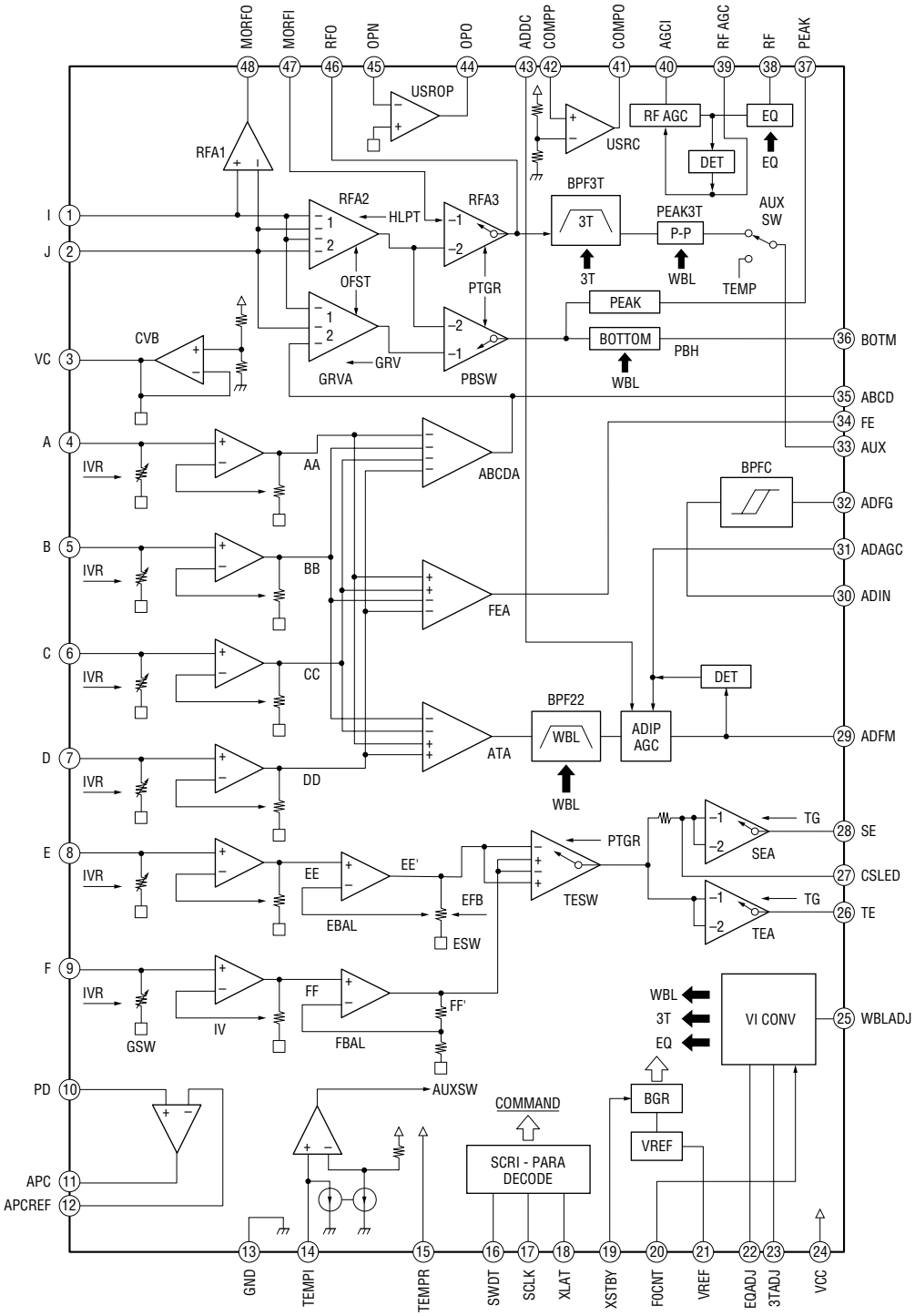
IC101 PCM1718E/2K



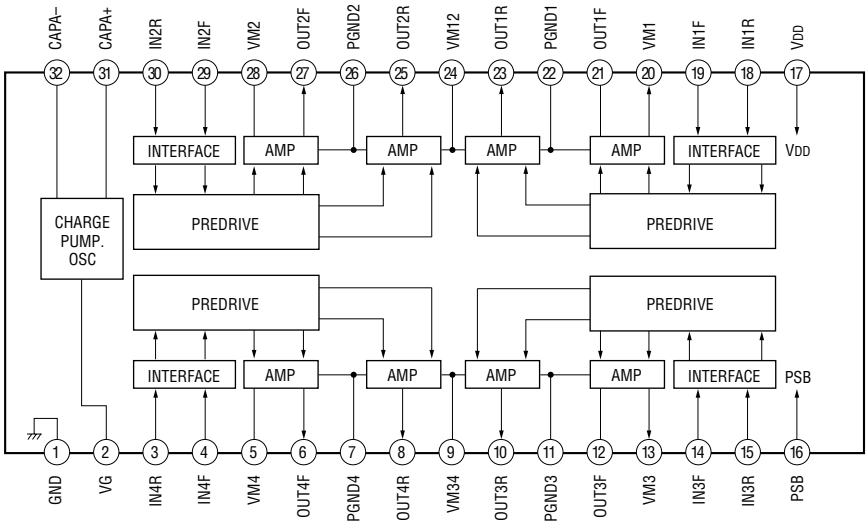
IC301 CXD2662R



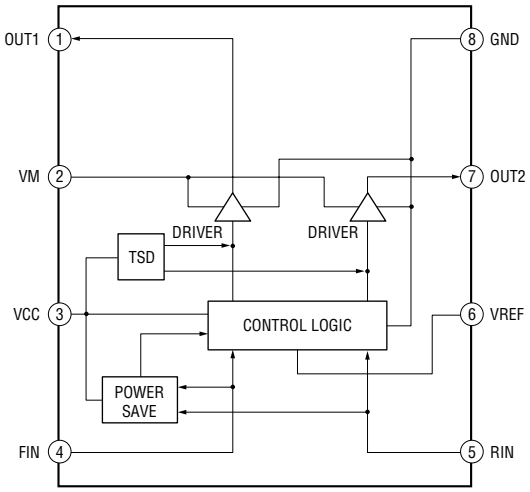
IC302 CXA2523AR



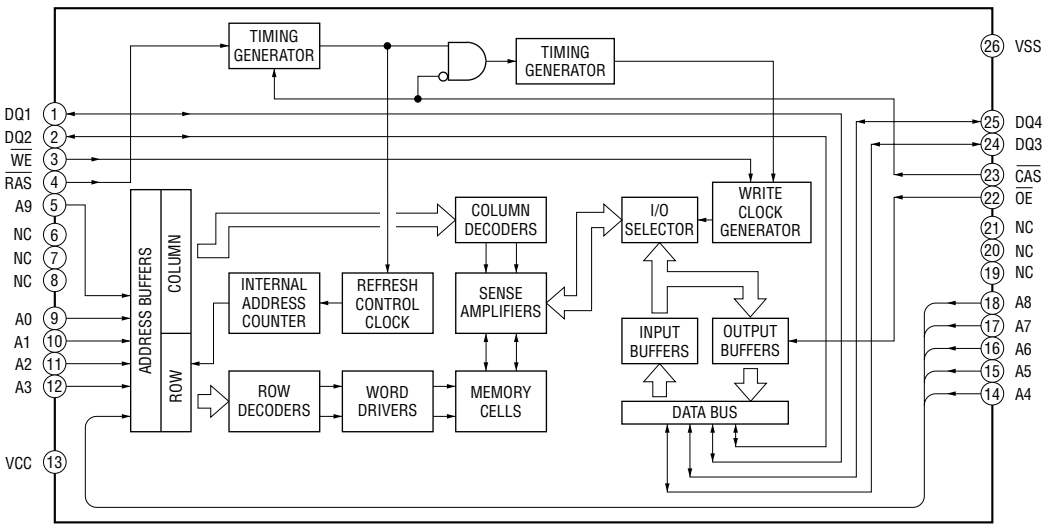
IC303 BH6518FS-E2



IC305 BA6287F

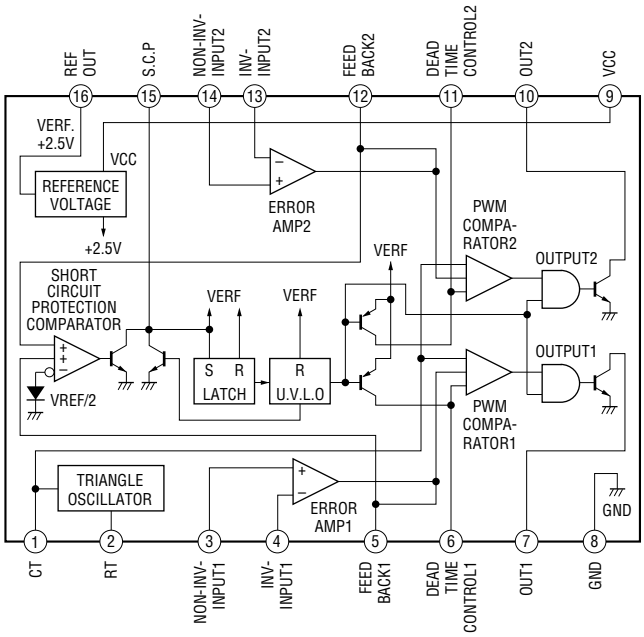


IC307 MSM51V4400E-70TS-K

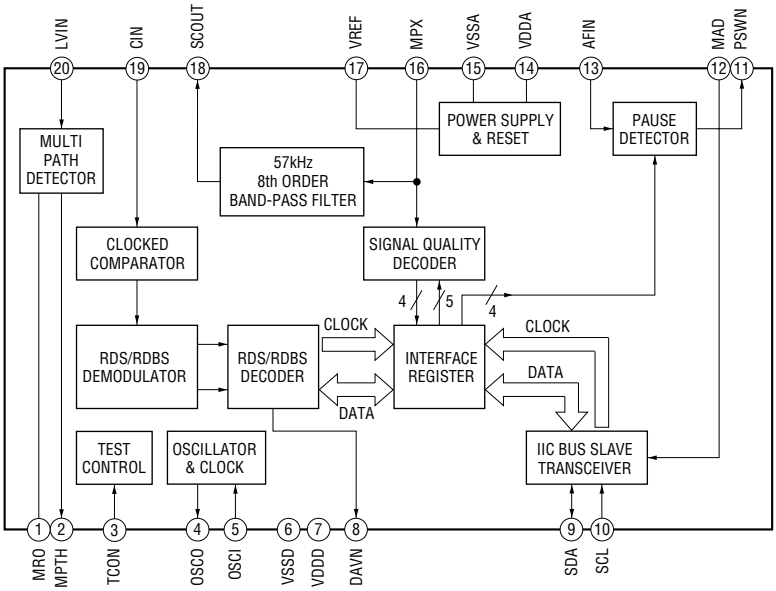


– MAIN Board –

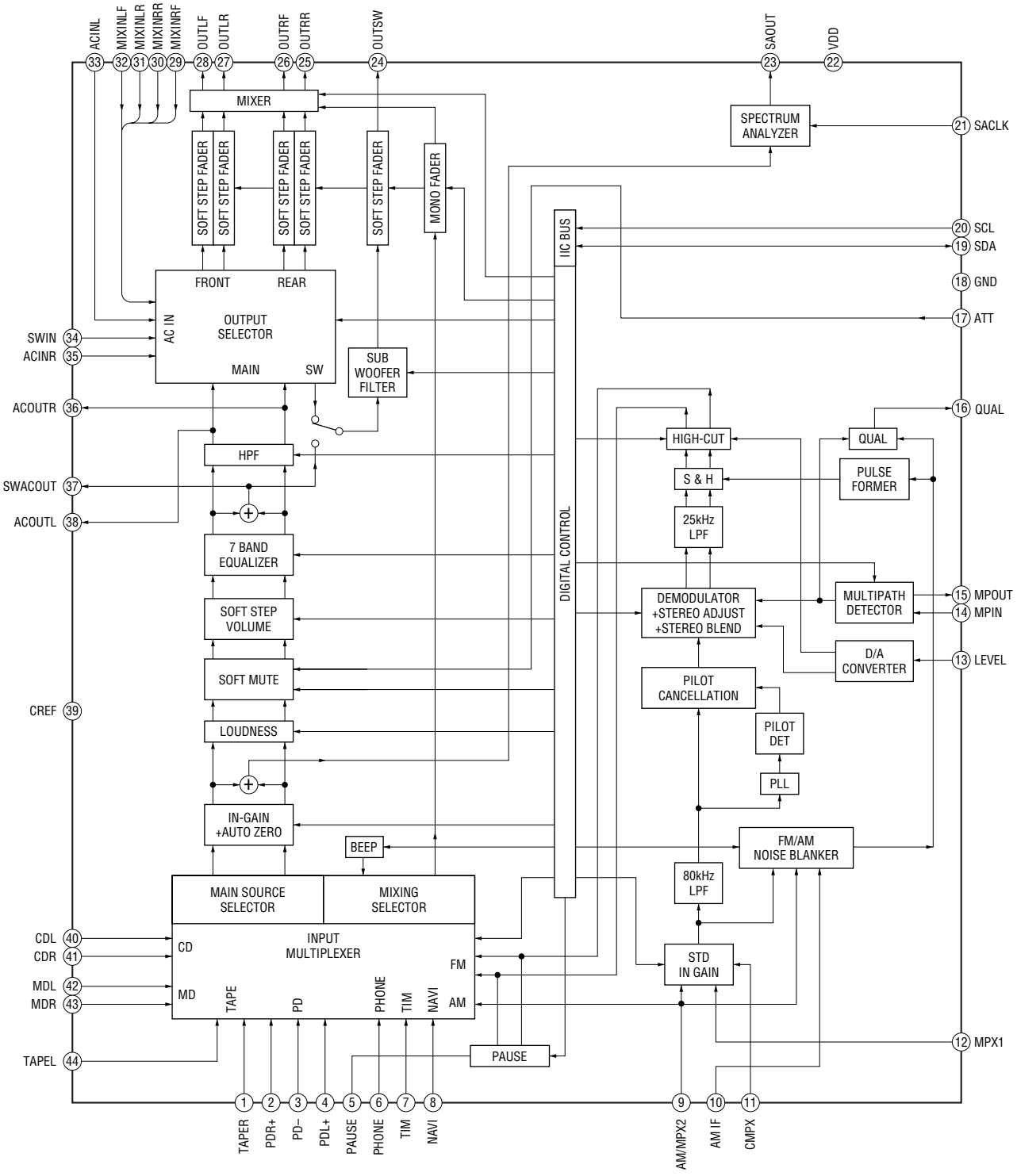
IC101 TL1451ACDB-E20



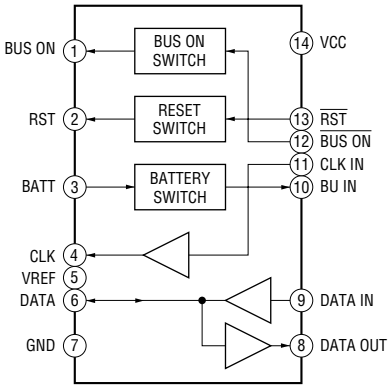
IC202 SAA6588T-118



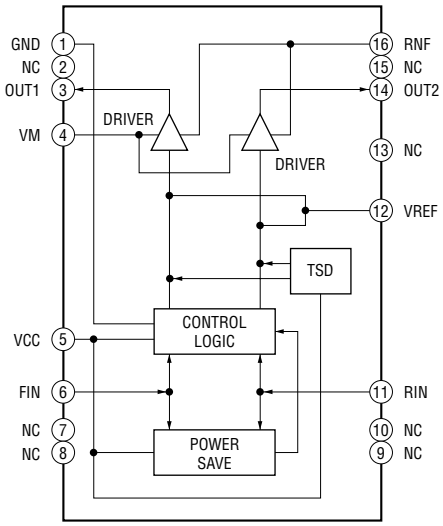
IC305 TDA7406T



IC601 BA8270F-E2

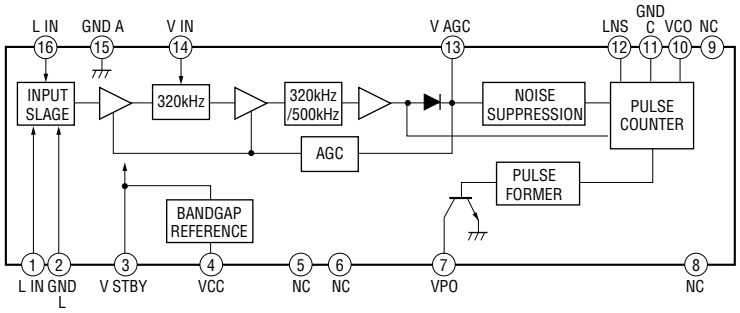


IC651 BA6288FS-E2



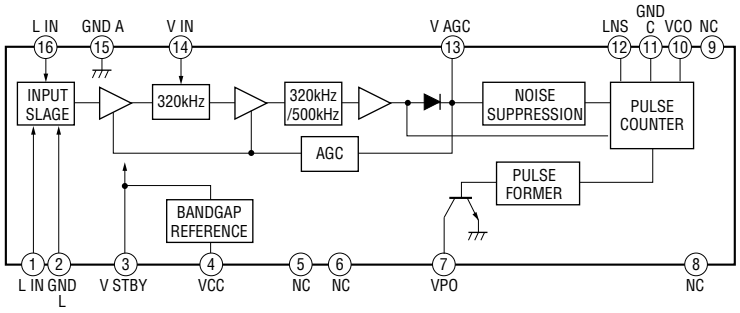
– SUB MD Board –

IC901 RRX9000-0601#1



– DISPLAY Board –

IC62 RRX9000-0601#1



6-21. IC PIN FUNCTION DESCRIPTION

- **SERVO BOARD IC301 CXD2662R**
  (DIGITAL SIGNAL PROCESSOR, DIGITAL SERVO PROCESSOR, EFM/ACIRC ENCODER/DECODER, SHOCK PROOF MEMORY CONTROLLER, ATRAC ENCODER/DECODER)

Pin No.	Pin Name	I/O	Description
1	MNT0 (FOK)	O	Focus OK signal output to the MD mechanism controller (IC501) "H" is output when focus is on ("L": NG)
2	MNT1 (SHOCK)	O	Track jump detection signal output to the MD mechanism controller (IC501)
3	MNT2 (XBUSY)	O	Busy monitor signal output to the MD mechanism controller (IC501)
4	MNT3 (SLOCK)	O	Spindle servo lock status monitor signal output to the MD mechanism controller (IC501)
5	SWDT	I	Writing serial data signal input from the MD mechanism controller (IC501)
6	SCLK	I	Serial data transfer clock signal input from the MD mechanism controller (IC501)
7	XLAT	I	Serial data latch pulse signal input from the MD mechanism controller (IC501)
8	SRDT	O (3)	Reading serial data signal output to the MD mechanism controller (IC501)
9	SENS	O (3)	Internal status (SENSE) output to the MD mechanism controller (IC501)
10	XRST	I	Reset signal input from the MD mechanism controller (IC501) "L": reset
11	SQSY	O	Subcode Q sync (SCOR) output to the MD mechanism controller (IC501) "L" is output every 13.3 msec Almost all, "H" is output
12	DQSY	O	Digital In U-bit CD format subcode Q sync (SCOR) output terminal "L" is output every 13.3 msec Almost all, "H" is output Not used (open)
13	RECP	I	Laser power selection signal input terminal "L": playback mode, "H": recording mode (fixed at "L" in this set)
14	XINT	O	Interrupt status output to the MD mechanism controller (IC501)
15	TX	O	Recording data output enable signal input terminal Writing data transmission timing input (Also serves as the magnetic head on/off output) Not used (fixed at "L")
16	OSCI	I	System clock signal (1024Fs=45 MHz) input from the oscillator circuit
17	OSCO	O	System clock signal (1024Fs=45 MHz) output terminal Not used (open)
18	XTSL	I	Input terminal for the system clock frequency setting "L": 45.1584 MHz, "H": 22.5792 MHz (fixed at "L" in this set)
19	DIN0	I	Digital audio signal input terminal when recording mode Not used (fixed at "L")
20	DIN1	I	Digital audio signal input terminal when recording mode Not used (fixed at "L")
21	DOUT	O	Digital audio signal output terminal when playback mode Not used
22	DADTAI	I	Recording data input terminal Not used (fixed at "L")
23	LRCKI	I	L/R sampling clock signal (44.1 kHz) input terminal Not used (fixed at "L")
24	XBCKI	I	Bit clock signal (2.8224 MHz) input terminal Not used (fixed at "L")
25	ADDT	I	Recording data input terminal Not used (fixed at "L")
26	DADT	O	Playback data output to the PCM1718E (IC101)
27	LRCK	O	L/R sampling clock signal (44.1 kHz) output to the PCM1718E (IC101)
28	XBCK	O	Bit clock signal (2.8224 MHz) output to the PCM1718E (IC101)
29	FS256	O	Clock signal (11.2896 MHz) output to the PCM1718E (IC101)
30	DVDD	—	Power supply terminal (+3.3V) (digital system)
31 to 34	A03 to A00	O	Address signal output to the D-RAM (IC307)
35	A10	O	Address signal output to the external D-RAM Not used (open)
36 to 40	A04 to A08	O	Address signal output to the D-RAM (IC307)
41	A11	O	Address signal output to the external D-RAM Not used (open)
42	DVSS	—	Ground terminal (digital system)
43	XOE	O	Output enable signal output to the D-RAM (IC307) "L" active
44	XCAS	O	Column address strobe signal output to the D-RAM (IC307) "L" active
45	A09	O	Address signal output to the D-RAM (IC307)

Pin No.	Pin Name	I/O	Description
46	XRAS	O	Row address strobe signal output to the D-RAM (IC307) "L" active
47	XWE	O	Write enable signal output to the D-RAM (IC307) "L" active
48	D1	I/O	Two-way data bus with the D-RAM (IC307)
49	D0	I/O	
50	D2	I/O	
51	D3	I/O	
52	MVCI	I	Digital in PLL oscillation input from the external VCO Not used (fixed at "L")
53	ASYO	O	Playback EFM full-swing output terminal
54	ASYI	I (A)	Playback EFM asymmetry comparator voltage input terminal
55	AVDD	—	Power supply terminal (+3.3V) (analog system)
56	BIAS	I (A)	Playback EFM asymmetry circuit constant current input terminal
57	RFI	I (A)	Playback EFM RF signal input from the CXA2523AR (IC302)
58	AVSS	—	Ground terminal (analog system)
59	PCO	O (3)	Phase comparison output for master clock of the recording/playback EFM master PLL
60	FILI	I (A)	Filter input for master clock of the recording/playback master PLL
61	FILO	O (A)	Filter output for master clock of the recording/playback master PLL
62	CLTV	I (A)	Internal VCO control voltage input of the recording/playback master PLL
63	PEAK	I (A)	Light amount signal (RF/ABCD) peak hold input from the CXA2523AR (IC302)
64	BOTM	I (A)	Light amount signal (RF/ABCD) bottom hold input from the CXA2523AR (IC302)
65	ABCD	I (A)	Light amount signal (ABCD) input from the CXA2523AR (IC302)
66	FE	I (A)	Focus error signal input from the CXA2523AR (IC302)
67	AUX1	I (A)	Auxiliary signal (I_3 signal/temperature signal) input from the CXA2523AR (IC302)
68	VC	I (A)	Middle point voltage (+1.65V) input from the CXA2523AR (IC302)
69	ADIO	O (A)	Monitor output of the A/D converter input signal Not used (open)
70	AVDD	—	Power supply terminal (+3.3V) (analog system)
71	ADRT	I (A)	A/D converter operational range upper limit voltage input terminal (fixed at "H" in this set)
72	ADRB	I (A)	A/D converter operational range lower limit voltage input terminal (fixed at "L" in this set)
73	AVSS	—	Ground terminal (analog system)
74	SE	I (A)	Sled error signal input from the CXA2523AR (IC302)
75	TE	I (A)	Tracking error signal input from the CXA2523AR (IC302)
76	DCHG	I (A)	Connected to the +3.3V power supply
77	APC	I (A)	Error signal input for the laser automatic power control Not used (fixed at "L")
78	ADFG	I	ADIP duplex FM signal (22.05 kHz ± 1 kHz) input from the CXA2523AR (IC302)
79	F0CNT	O	Filter f0 control signal output terminal Not used (open)
80	XLRF	O	Serial data latch pulse signal output terminal Not used (open)
81	CKRF	O	Serial data transfer clock signal output terminal Not used (open)
82	DTRF	O	Writing serial data output terminal Not used (open)
83	APCREF	O	Control signal output to the reference voltage generator circuit for the laser automatic power control
84	TEST0	O	Input terminal for the test Not used (open)
85	TRDR	O	Tracking servo drive PWM signal (–) output to the BH6518FS (IC303)
86	TFDR	O	Tracking servo drive PWM signal (+) output to the BH6518FS (IC303)
87	DVDD	—	Power supply terminal (+3.3V) (digital system)
88	FFDR	O	Focus servo drive PWM signal (+) output to the BH6518FS (IC303)
89	FRDR	O	Focus servo drive PWM signal (–) output to the BH6518FS (IC303)
90	FS4	O	Clock signal (176.4 kHz) output terminal (X'tal system) Not used (open)

Pin No.	Pin Name	I/O	Description
91	SRDR	O	Sled servo drive PWM signal (–) output to the BH6518FS (IC303)
92	SFDR	O	Sled servo drive PWM signal (+) output to the BH6518FS (IC303)
93	SPRD	O	Spindle servo drive PWM signal (–) output to the BH6518FS (IC303)
94	SPFD	O	Spindle servo drive PWM signal (+) output to the BH6518FS (IC303)
95	FGIN	I	Input terminal for the test (fixed at “L”)
96	TEST1	I	
97	TEST2	I	
98	TEST3	I	
99	DVSS	—	Ground terminal (digital system)
100	EFMO	O	EFM signal output terminal when recording mode Not used (open)

* I (A) for analog input, O (3) for 3-state output, and O (A) for analog output in the column I/O.

• **SERVO BOARD IC302 CXA2523AR (RF AMP, FOCUS/TRACKING ERROR AMP)**

Pin No.	Pin Name	I/O	Description
1	I	I	I-V converted RF signal I input from the optical pick-up block detector
2	J	I	I-V converted RF signal J input from the optical pick-up block detector
3	VC	O	Middle point voltage (+1.65V) generation output terminal
4 to 9	A to F	I	Signal input from the optical pick-up detector
10	PD	I	Light amount monitor input from the optical pick-up block laser diode
11	APC	O	Laser amplifier output terminal to the automatic power control circuit
12	APCREF	I	Reference voltage input terminal for setting laser power
13	GND	—	Ground terminal
14	TEMPI	I	Connected to the temperature sensor Not used (open)
15	TEMPR	O	Output terminal for a temperature sensor reference voltage Not used (open)
16	SWDT	I	Writing serial data input from the MD mechanism controller (IC501)
17	SCLK	I	Serial data transfer clock signal input from the MD mechanism controller (IC501)
18	XLAT	I	Serial data latch pulse signal input from the MD mechanism controller (IC501)
19	XSTBY	I	Standby signal input terminal "L": standby (fixed at "H" in this set)
20	F0CNT	I	Center frequency control voltage input terminal of internal circuit (BPF22, BPF3T, EQ) input terminal
21	VREF	O	Reference voltage output terminal Not used (open)
22	EQADJ	I	Center frequency setting terminal for the internal circuit (EQ)
23	3TADJ	I	Center frequency setting terminal for the internal circuit (BPF3T)
24	VCC	—	Power supply terminal (+3.3V)
25	WBLADJ	I	Center frequency setting terminal for the internal circuit (BPF22)
26	TE	O	Tracking error signal output to the CXD2662R (IC301)
27	CSLED	I	Connected to the external capacitor for low-pass filter of the sled error signal
28	SE	O	Sled error signal output to the CXD2662R (IC301)
29	ADFM	O	FM signal output of the ADIP
30	ADIN	I	Receives a ADIP FM signal in AC coupling
31	ADAGC	I	Connected to the external capacitor for ADIP AGC
32	ADFG	O	ADIP duplex signal (22.05 kHz ± 1 kHz) output to the CXD2662R (IC301)
33	AUX	O	Auxiliary signal (I_3 signal/temperature signal) output terminal Not used (open)
34	FE	O	Focus error signal output to the CXD2662R (IC301)
35	ABCD	O	Light amount signal (ABCD) output to the CXD2662R (IC301)
36	BOTM	O	Light amount signal (RF/ABCD) bottom hold output to the CXD2662R (IC301)
37	PEAK	O	Light amount signal (RF/ABCD) peak hold output to the CXD2662R (IC301)
38	RF	O	Playback EFM RF signal output to the CXD2662R (IC301)
39	RFAGC	I	Connected to the external capacitor for RF auto gain control circuit
40	AGCI	I	Receives a RF signal in AC coupling
41	COMPO	O	User comparator output terminal Not used (open)
42	COMPP	I	User comparator input terminal Not used (fixed at "L")
43	ADDC	I	Connected to the external capacitor for cutting the low band of the ADIP amplifier
44	OPO	O	User operational amplifier output terminal Not used (open)
45	OPN	I	User operational amplifier inversion input terminal Not used (fixed at "L")
46	RFO	O	RF signal output
47	MORFI	I	Receives a MO RF signal in AC coupling
48	MORFO	O	MO RF signal output

• **SERVO BOARD IC501 CXP84340-231Q (MD MECHANISM CONTROLLER)**

Pin No.	Pin Name	I/O	Description
1 to 5	TIN3 to TIN7	I/O	Input of the 4×8 matrix test keys (“L” is always output, except in test mode) Not used (open)
6	LOAD	O	Loading motor control signal output to the motor driver (IC305) “H” active *1
7	EJECT	O	Loading motor control signal output to the motor driver (IC305) “H” active *1
8, 9	—	O	Not used (open)
10	MDMON	O	Power supply on/off control signal output of the power controller (IC101) “H”: power on
11	$\overline{\text{E-SW}}$	I	Inputs a disc loading completion detect switch detection signal “L”: When completed of a disc loading operation
12	AG-OK	O	Output of aging status in test mode “L”: under aging, “H”: aging completed Not used (open)
13	ADJ-OK	O	Output of status when aging completed in test mode “L”: aging NG, “H”: aging OK Not used (open)
14 to 17	—	O	Not used (open)
18	DFCTSEL	I	Select whether defect function is used for the CXD2662R (IC301) “L”: used this function , “H”: not used this function (fixed at “H” in this set)
19	DPLLSEL	I	Select whether double PLL function is used for the CXD2662R (IC301) “L”: used this function , “H”: not used this function (fixed at “H” in this set)
20	EMPHSEL	I	Select whether emphasis signal output from pin or unilink data “L”: outputs from both pin and unilink data, “H”: output from pin only (fixed at “H” in this set)
21	LOCK	O	Mini-disc lock detection signal output to the system controller (IC501)
22	—	O	Not used (open)
23	2M/$\overline{\text{4M}}$	I	Select whether D-RAM capacitance 2M bit or 4M bit “L”: 4M bit (external D-RAM) , “H”: 2M bit (internal D-RAM of CXD2652AR) (fixed at “L” in this set)
24, 25	—	O	Not used (open)
26	MNT0	I	Focus OK signal input from the CXD2662R (IC301) “H” is input when focus is on (“L”: NG)
27	MNT1	I	Track jump detection signal input from the CXD2662R (IC301)
28	MNT2	I	Busy monitor signal input from the CXD2662R (IC301)
29	MNT3	I	Spindle servo lock status monitor signal input from the CXD2662R (IC301)
30	$\overline{\text{RESET}}$	I	System reset signal input from the system controller (IC501) and reset signal generator (IC502) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
31	EXTAL	I	Main system clock input terminal (10 MHz)
32	XTAL	O	Main system clock output terminal (10 MHz)
33	VSS	—	Ground terminal
34	TX	O	Sub system clock output terminal (32.768 kHz) Not used (open)
35	TEX	I	Sub system clock input terminal (32.768 kHz) Not used (fixed at “L”)
36	AVSS	—	Ground terminal (for A/D converter)
37	AVREF	I	Reference voltage input terminal (+5V) (for A/D converter)
38	INIT	I	Initial reset signal input terminal (A/D input) (fixed at “H”)
39	TEMP	I	Temperature sensor (TH501) input terminal (A/D input)
40	ACNT	I	Select the number of load/eject aging times (A/D input) 0h – 54h (30 times), 55h – 0A9h (20 times), 0AAh – 0FFh (10 times)
41	DO-SEL	I	Select the digital output bits (A/D input)
42	EE-CS	O	Chip select signal output to the external EEPROM device Not used (open)
43	EE-CKO	O	Serial data transfer clock signal output to the external EEPROM device Not used (open)
44	EE-SIO	I/O	Two way data bus with the external EEPROM device Not used (open)
45	MD-SO	O	Writing serial data signal output to the CXD2662R (IC301) and CXA2523AR (IC302)

Pin No.	Pin Name	I/O	Description
46	LINKOFF	O	Unilink on/off control signal output for the SONY bus "H": link off Not used (open)
47	UNIREQ	O	Data request signal output terminal (for SONY bus) "H": request on Not used (open)
48	UNICKIO	I/O	Serial clock signal input from the system controller (IC501) or serial clock signal output to the system controller (IC501) and SONY bus interface (IC601)
49	UNISI	I	Serial data input from the SONY bus interface (IC601)
50	UNISO	O	Serial data output to the SONY bus interface (IC601)
51	MD-CKO	O	Serial data transfer clock signal output to the CXD2662R (IC301) and CXA2523AR (IC302)
52	MD-SI	I	Reading serial data signal input from the CXD2662R (IC301)
53	—	O	Not used (open)
54	SENS	I	Internal status (SENSE) input from the CXD2662R (IC301)
55	CC-XINT	I	Interrupt status input from the CXD2662R (IC301)
56	$\overline{\text{LIMIT-IN}}$	I	Detection input from the sled limit-in detect switch The optical pick-up is inner position when "L"
57	EJT-OK	I	Front panel open detection signal input from the system controller (IC501) "L": eject possible
58	ERROR-PWM	O	PWM error monitor output terminal (C1and ATER is output when test mode) Not used (open)
59	$\overline{\text{MD-RST}}$	O	Reset signal output to the PCM1718E (IC101), CXD2662R (IC301) and BH6518FS (IC303) "L": reset
60	BU-IN	I	Battery detect signal input from the SONY bus interface (IC601) and battery check circuit "H": battery on
61	$\overline{\text{BUS-ON}}$	I	SONY bus on/off control signal input from the system controller (IC501) "L": bus on
62	SQSY	I	Subcode Q sync (SCOR) input from the CXD2662R (IC301) "L" is input every 13.3 msec Almost all, "H" is input
63	$\overline{\text{C-SW}}$	I	Inputs a disc loading start or a disc eject completion detect switch detection signal "L": When loading start or eject completed of a disc loading operation
64	MD-LAT	O	Serial data latch pulse signal output to the CXD2662R (IC301) and CXA2523AR (IC302)
65	MD-ON	O	Power supply on/off control signal output of the MD mechanism deck section main power supply "H": power on
66	DEEMP	O	De-emphasis on/off control signal output to the PCM1718E (IC101) "H": de-emphasis on
67	A-MUTE	O	Power amplifier muting on/off control signal output to the power amplifier (IC309) and audio line muting on/off control signal output "H": muting on
68	—	O	Not used (open)
69	TSTCKO	O	Output of clock signal for the test mode display Not used (open)
70	TSTSO	O	Output of data for the test mode display Not used (open)
71	$\overline{\text{TSTMOD}}$	I	Setting terminal for the test mode "L": test mode, "H": normal mode
72	VCC	—	Power supply terminal (+5V)
73	NC	I	Not used (fixed at "H")
74 to 77	TOUT0 to TOUT3	O	Output of the 4×8 matrix test keys Not used (open)
78 to 80	TIN0 to TIN2	I/O	Input of the 4×8 matrix test keys ("L" is always output, except in test mode) Not used (open)

*1 Loading motor (M903) control

Terminal \ Operation	IN	OUT	BRAKE	STOP
LOAD (pin ⑥)	"H"	"L"	"H"	"L"
EJECT (pin ⑦)	"L"	"H"	"H"	"L"

• **MAIN BOARD IC501 MB90574BPMT-G-322-BND (SYSTEM CONTROLLER)**

Pin No.	Pin Name	I/O	Description
1 to 4	NCO	O	Not used (open)
5	ATT	O	Power amplifier muting on/off control signal output to the power amplifier (IC309) and audio line muting on/off control signal output "H": muting on
6	$\overline{\text{SYSRST}}$	O	Reset signal output to the MD mechanism controller (IC501) SONY bus interface (IC601) "L": reset
7 to 9	NCO	O	Not used (open)
10	EEP SIO	I/O	Two-way data EEPROM bus with the FM/AM tuner unit (TUX201)
11	EEP CKO	O	EEPROM bus clock signal output to the FM/AM tuner unit (TUX201)
12	RX	I	Input terminal for UART transfer data when writing into internal flash memory data
13	TX	O	Output terminal for UART transfer data when writing into internal flash memory data
14	$\overline{\text{BUS- ON}}$	O	Bus on/off control signal output to the MD mechanism controller (IC501), SONY bus interface (IC601) and display controller (IC702) "L": bus on
15	BEEP	O	Beep sound drive signal output terminal
16	TEL-ATT	I	Telephone muting signal input terminal "H": muting on
17	UNISI	I	Serial data input from the SONY bus interface (IC601)
18	UNISO	O	Serial data output to the SONY bus interface (IC601)
19	UNICLK	I/O	Serial clock signal output to the MD mechanism controller (IC501), SONY bus interface (IC601) and display controller (IC702) or serial clock signal input from the MD mechanism controller (IC501)
20 to 23	NCO	O	Not used (open)
24	SIRCS	I	Sircs remote control signal input from the SIRCS controller (IC801)
25 to 30	NCO	O	Not used (open)
31	$\overline{\text{E-VOL-ATT}}$	O	Pre amplifier muting on/off control signal output to the TDA7406T (IC305) "L": muting on
32	NCO	O	Not used (open)
33	VSS	—	Ground terminal
34	C	—	Connected to coupling capacitor for the power supply
35, 36	NCO	O	Not used (open)
37	SHIFT	O	Oscillation frequency shift signal output to the power controller (IC101)
38	DVCC	—	Power supply terminal (+5V) (for D/A converter)
39	DVSS	—	Ground terminal (for D/A converter)
40	FR_CTRL	O	Reference voltage control signal output for front panel open/close motor driver (IC651)
41	NCO	O	Not used (open)
42	AVCC	—	Power supply terminal (+5V) (for A/D converter)
43	AVRH	I	Reference voltage (+5V) input terminal (for A/D converter)
44	AVRL	I	Reference voltage (0V) input terminal (for A/D converter)
45	AVSS	—	Ground terminal (for A/D converter)
46	KEY-IN0	I	Key input terminal (A/D input) (LSW10, LSW13, LSW15, LSW18, LSW20, LSW22, S4, S10 to S15) 6,⏮ ◀◀, TA, DISC –, DISC +, ⏭ ▶▶, ⏏, ENTER, LIST, MENU, SOUND, DSO, EQ7 keys input
47	KEY-IN1	I	Key input terminal (A/D input) (LSW1,LSW2, LSW5 to LSW9, LSW11, LSW12, S2, S3, S7 to S9) –, SOURCE, +, AF, REP 1, SHUF 2, 3, 5, 4, CLOSE, MODE, OFF, SCRL, DSPL PTY keys input
48	RC-IN0	I	Rotary remote commander key input terminal (A/D input)
49	NCO	O	Not used (open)
50	QUAL	I	Noise level detection signal input at SEEK mode (A/D input)
51	NCO	O	Not used (open)
52	MPTH	I	Multi-path detection signal input from the RDS decoder (IC202) (A/D input)

Pin No.	Pin Name	I/O	Description
53	S-METER	I	FM and AM signal meter voltage detection signal input from the FM/AM tuner unit (TUX201) (A/D input)
54	VCC	—	Power supply terminal (+5V)
55	ST-BY	O	Standby on/off control signal output to the power amplifier (IC309) "L": standby mode, "H": amp on
56	NS-MASK	O	Discharge control signal output for the noise detection circuit "H": discharge
57	DDC-ON	O	Power supply on/off control signal output of the power controller (IC101) "H": power on
58	CD_EJECT_OK	O	Front panel open detection signal output to the MD mechanism controller (IC501) "L": eject possible
59	$\overline{\text{CD_OPEN_REQ}}$	I	Mini-disc lock detection signal input to the MD mechanism controller (IC501)
60	NCO	O	Not used (open)
61	OPEN-KEY	I	Open key (LSW60) input terminal When "L" is input, open the front panel
62	$\overline{\text{NOSE-SW}}$	I	Display panel attach detection signal input terminal "L": front panel is attached
63	VSS	—	Ground terminal
64	$\overline{\text{DETACH_SW}}$	I	Display panel detach detection signal input terminal "L": front panel is detached
65	PWM	I	For frequency counting signal input teminal from the power controller (IC101)
66 to 68	NCO	O	Not used (open)
69	FLASH-W	I	Internal flash memory data write mode detection signal input terminal "L": data write mode
70	IIC-SDA	I/O	Two-way data IIC bus with the FM/AM tuner unit (TUX201), RDS decoder (IC202) and TDA7406T (IC305)
71	IIC-SCL	O	IIC bus clock signal output to the FM/AM tuner unit (TUX201), RDS decoder (IC202) and TDA7406T (IC305)
72	RC-IN1	I	Rotary remote commander shift key input terminal "L": shift key on
73	X1A	O	Sub system clock output terminal (32.768 kHz)
74	X0A	I	Sub system clock input terminal (32.768 kHz)
75	DAVN	I	Synchronized detection signal of RDS data block input from the RDS decoder (IC202) "H": active
76	NCO	O	Not used (open)
77	BUIN	I	Battery detection signal input from the SONY bus interface (IC601) "L" is input at low voltage
78	NCO	O	Not used (open)
79	KEY_ACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of "H"
80	$\overline{\text{AD-ON}}$	O	A/D converter power control signal output When the KEY_ACK (pin ⑦⑨) that controls reference voltage power for key A/D conversion input is active, "L" is output from this terminal to enable the input
81	$\overline{\text{ACC IN}}$	I	Accessory detect signal input terminal "L": accessory on
82	FLS_PWON	O	Display power supply on/off control signal output "H": display power on
83	P-ON	O	Audio power supply on/off control signal output "H": audio power on
84	$\overline{\text{TEST-IN}}$	I	Setting terminal for the test mode "L": test mode, Normally: fixed at "H"
85	$\overline{\text{RAMBU}}$	I	Internal RAM reset detection signal input from the reset signal generator (IC502) Input terminal to check that RAM data are not destroyed due to low voltage This checking is made within 100 msec after reset
86	HSTX	I	Hardware standby input terminal "L": hardware standby mode Reset signal input in this set
87	MD2	I	Setting terminal for the CPU operational mode (fixed at "L" in this set)
88	MD1	I	Setting terminal for the CPU operational mode (fixed at "H" in this set)
89	MD0	I	Setting terminal for the CPU operational mode (fixed at "H" in this set)
90	RSTX	I	System reset signal input from the reset signal generator (IC502) and reset switch (SW901, S60) "L": reset "L" is input for several 100 msec after power on, then it changes to "H"

Pin No.	Pin Name	I/O	Description
91	VSS	—	Ground terminal
92	X0	I	Main system clock input terminal (3.68 MHz)
93	X1	O	Main system clock output terminal (3.68 MHz)
94	VCC	—	Power supply terminal (+5V)
95	$\overline{\text{ILL IN}}$	I	Auto dimmer control illumination line detection signal input terminal "L" is input at dimmer detection
96	I-DET	I	Detection signal input from the motor overload detection circuit for the front panel open/close motor (M601) "L" is input when the motor current exceeds the specified value
97	MOT–	O	Front panel open/close motor (M601) drive signal (in panel close direction) output to the BA6288FS (IC651)
98	MOT+	O	Front panel open/close motor (M601) drive signal (in panel open direction) output to the BA6288FS (IC651)
99	$\overline{\text{CLOSE-SW}}$	I	Front panel open/close detection switch input terminal "L" is input when the front panel is closed
100	$\overline{\text{OPEN-SW}}$	I	Front panel open/close detection switch input terminal "L" is input when the front panel is opened
101	$\overline{\text{CENT-SW}}$	I	Front panel detach position detection switch input terminal "L" is input when the front panel is detach position
102	NCO	O	Not used (open)
103	CDMD-SEL	I	CD or MD mechanism deck setting terminal "L": CD, "H": MD (fixed at "H" in this set)
104, 105	DSTSEL1, DESTSEL2	I	Destination setting terminal (fixed at "L")
106	$\overline{\text{BOOT}}$	O	Serial data output to the display controller (IC702) "L" is output when writing change
107 to 110	NCO	O	Not used (open)
111	PACK-IN	I	Disc insert detection switch input terminal "L" is input when the disc is inserting
112	4V SEL	I	Input terminal of whether line driver is mounted or not is detected "L": line driver is mounted (fixed at "H" in this set)
113	NCO	O	Not used (open)
114	TUNER-ON	O	Tuner system power supply on/off control signal output terminal "H": tuner power on
115, 116	LED SW1, LED SW2	O	Security/operation side select control signal output to the display controller (IC702)
117 to 120	NCO	O	Not used (open)

• **MAIN BOARD IC702 HD6432355A36F (DISPLAY CONTROLLER)**

Pin No.	Pin Name	I/O	Description
1	SA-CLK	O	Spectrum analyzer display serial data transfer clock signal output to the TDA7406T (IC305)
2	NCO	O	Not used (open)
3	VSS	—	Ground terminal
4	NCO	O	Not used (open)
5	VCC	—	Power supply terminal (+5V)
6 to 9	NCO	O	Not used (open)
10	VSS	—	Ground terminal
11 to 18	NCO	O	Not used (open)
19	VSS	—	Ground terminal
20 to 27	NCO	O	Not used (open)
28	VSS	—	Ground terminal
29 to 31	NCO	O	Not used (open)
32	SA_ENIN	I	Enable signal input for spectrum analyzer display from the system controller (IC500) "H": active
33	SPE-LAT	I	Serial data latch pulse input for spectrum analyzer display from the system controller (IC500) "H" active
34	BU-IN	I	Battery detection signal input from the SONY bus interface (IC601) "L" is input at low voltage
35, 36	VSS	—	Ground terminal
37	NCO	O	Not used (open)
38	$\overline{\text{BUS-ON}}$	I	Bus on/off control signal input from the system controller (IC500) "L": bus on
39	VCC	—	Power supply terminal (+5V)
40 to 43	NCO	O	Not used (open)
44	VSS	—	Ground terminal
45	DSP_SEL	I	Setting terminal for spectrum analyzer display data "L": A633, "H": DSP-IC
46, 47	LED SW1, LED SW2	I	Security/operation side select control signal input from the system controller (IC501)
48, 49	NCO	O	Not used (open)
50	LINK-OFF	O	Link on/off control signal output for the SONY bus "L": link on, "H": link off
51	NCO	O	Not used (open)
52	ILLON	O	Display power supply on/off control signal output "H": display power on
53	VSS	—	Ground terminal
54 to 56	NCO	O	Not used (open)
57	$\overline{\text{BOOT}}$	I	Serial data input at the flash memory writing mode "L" is input when writing change
58	VCC	—	Power supply terminal (+5V)
59	NCO	O	Not used (open)
60	LCD_SO/TX	O	Display serial data output to the liquid crystal display driver (IC1, 60, 61) Output terminal for UART transfer data when writing into internal flash memory data
61	SP-SI	I	Spectrum analyzer display serial data input terminal Not used (fixed at "L")
62	RX	I	Input terminal for UART transfer data when writing into internal flash memory data
63	SP-SCK	I	Spectrum analyzer display serial data transfer clock signal input terminal Not used (fixed at "L")
64	LCD_CKO	O	Display serial data transfer clock signal output to the liquid crystal display driver (IC1, 60, 61)
65	VSS	—	Ground terminal
66	LCDCE0	O	Chip enable signal output to the liquid crystal display driver (IC60) "H": active
67, 68	VSS	—	Ground terminal

Pin No.	Pin Name	I/O	Description
69	$\overline{\text{LCDINH}}$	O	Blank indicate control signal output to the liquid crystal display driver (IC1, 60, 61) "L": no display
70	LCDCE1	O	Chip enable signal output to the liquid crystal display driver (IC61) "H": active
71	LCDCE2	O	Chip enable signal output to the liquid crystal display driver (IC1) "H": active
72 to 78	NCO	O	Not used (open)
79	FL_W	O	Flash memory data write control signal output terminal "H": active
80	FWE (L)	I	Flash memory data write enable signal input terminal
81	$\overline{\text{SYSRES}}$	I	System reset signal input from the reset signal generator (IC502) "L" is input for several 100 msec after power on, then it changes to "H"
82	NMI (H)	I	Non maskable interrupt input terminal fixed at "H"
83	$\overline{\text{STBY (H)}}$	I	Hard ware standby input terminal fixed at "H"
84	VCC	—	Power supply terminal (+5V)
85	XTAL	O	System clock output terminal (18.432 MHz)
86	EXTAL	I	System clock input terminal (18.432 MHz)
87	VSS	—	Ground terminal
88	NCO	O	Not used (open)
89	VCC	—	Power supply terminal (+5V)
90 to 96	NCO	O	Not used (open)
97	UNI-SO	O	Serial data output to the SONY bus interface (IC601)
98	UNI-SI	I	Serial data input from the SONY bus interface (IC601)
99, 100	VSS	—	Ground terminal
101	UNI-SCK	I/O	Serial clock signal input /output with the MD mechanism controller (IC501) and system controller (IC501) or serial clock signal output to the SONY bus interface (IC601)
102	NCO	O	Not used (open)
103	AVCC	—	Power supply terminal (+5V) (for A/D converter)
104	VREF	I	Reference voltage (+5V) input terminal (for A/D converter)
105 to 111	NIL	I	Not used (fixed at "L")
112	SA-IN	I	Spectrum analyzer display serial data input from the TDA7406T (IC305)
113	AVSS	—	Ground terminal (for A/D converter)
114	VSS	—	Ground terminal
115 to 122	NCO	O	Not used (open)
123	MD0 (H)	I	Setting terminal for the CPU operational mode (fixed at "H" in this set)
124	MD1 (H)	I	Setting terminal for the CPU operational mode (fixed at "H" in this set)
125	MD2 (H)	I	Setting terminal for the CPU operational mode (fixed at "H" in this set)
126 to 128	NCO	O	Not used (open)

• **MAIN BOARD IC801 RRX9000-0401R#01 (SIRCS CONTROLLER)**

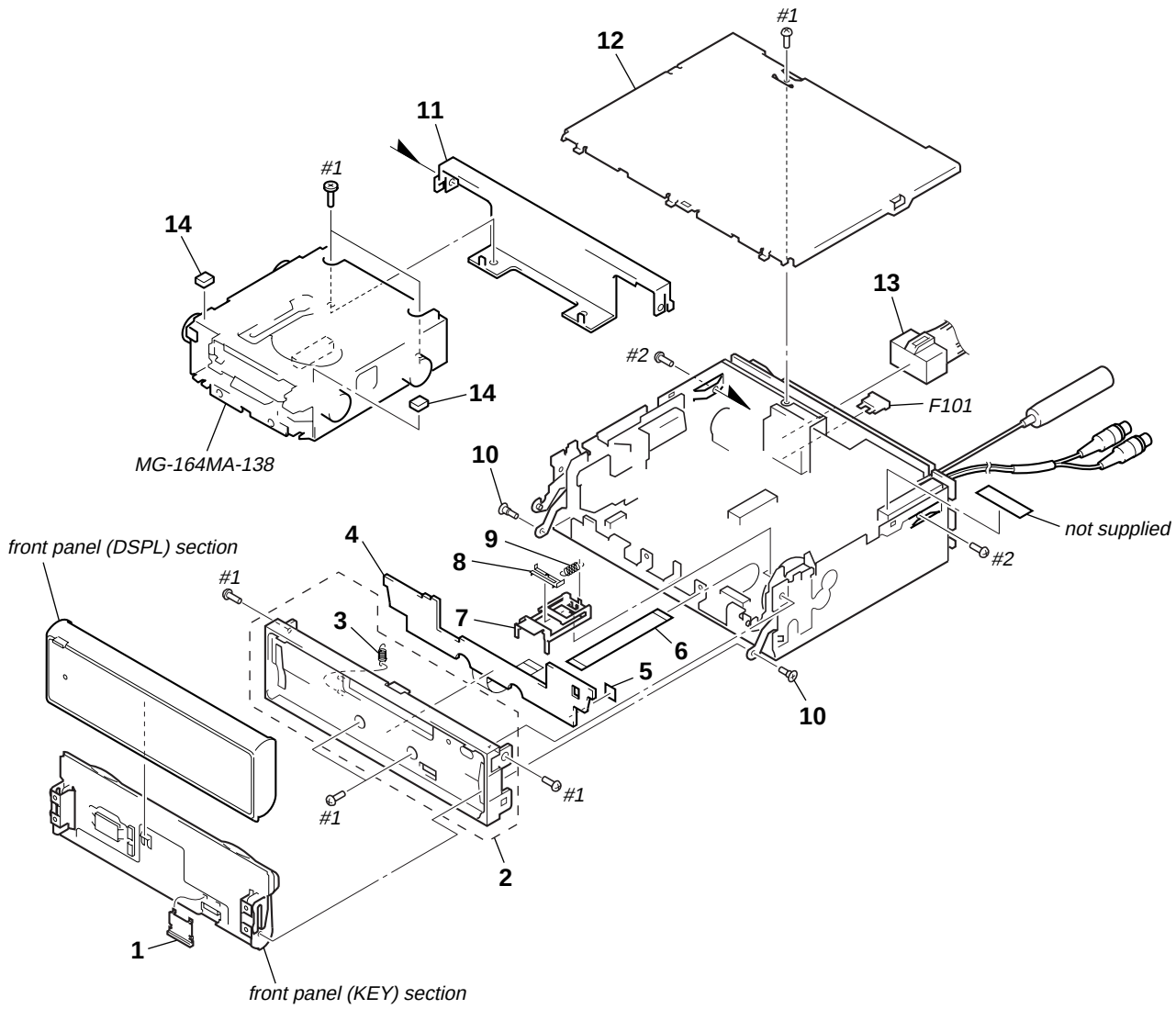
Pin No.	Pin Name	I/O	Description
1	VDD	—	Power supply terminal (+5V)
2	VSS	—	Ground terminal
3	XIN	I	System clock input terminal (4 MHz)
4	XOUT	O	System clock output terminal (4 MHz)
5	CNVSS	—	Ground terminal
6	$\overline{\text{RESET}}$	I	Reset signal input trminal "L": reset
7, 8	F0, F1	—	Not used
9	SIRCS IN	I	SIRCS signal input from the remote control receiver (IC62, IC901)
10	G1/INT	—	Not used
11, 12	G2, G3	—	Not used (open)
13 to 16	S3 to S0	—	Not used (fixed at "L")
17	SIRCS OUT	O	SIRCS signal output to the system controller (IC501)
18 to 20	D2/C, D1, D0	—	Not used (fixed at "L")

SECTION 7
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

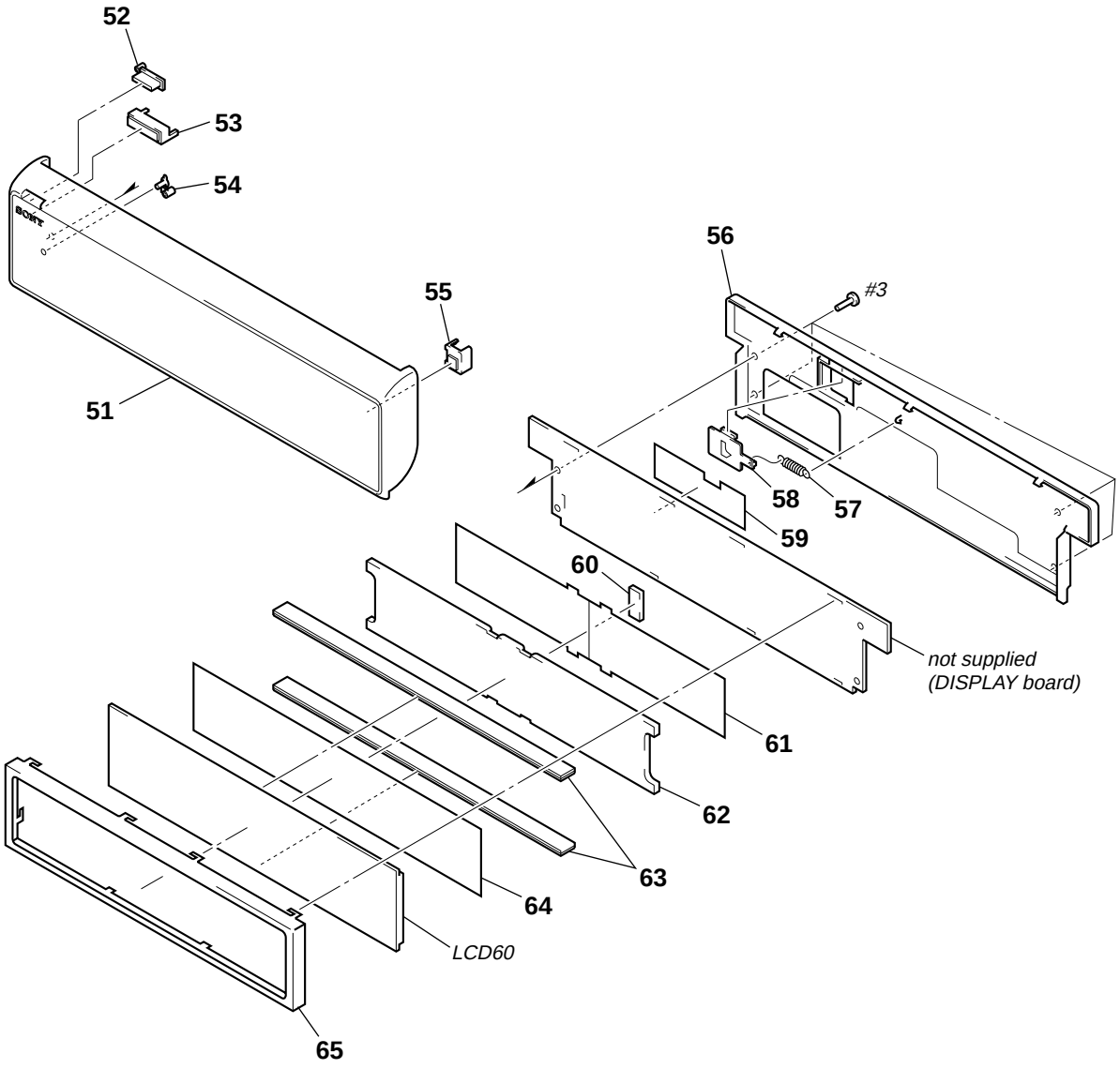
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. SUB PANEL SECTION



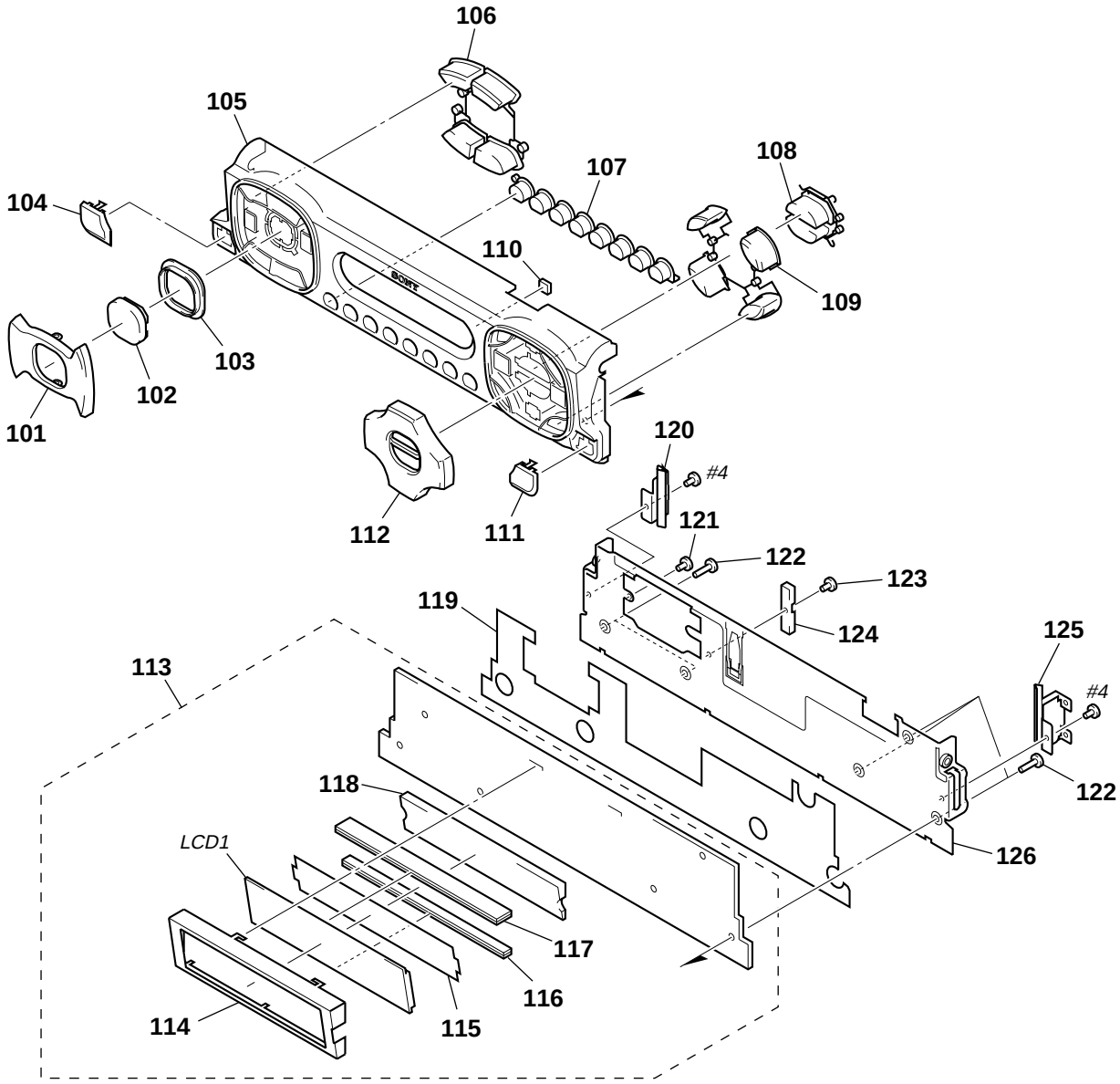
Ref. No.	Part No.	Description	Remark
1	3-230-491-01	GUIDE (FLEXIBLE)	
2	X-3380-556-1	PANEL (MD) SUB ASSY, SUB	
3	3-042-966-01	SPRING (DOOR)	
4	1-681-374-11	SUB MD BOARD	
5	3-232-857-01	SHEET (SUB PANEL), ELECTROSTATIC	
6	1-681-390-11	FLEXIBLE BOARD	
7	3-230-514-01	COVER (FLEXIBLE)	
8	3-230-515-01	SLIDER (FLEXIBLE)	
9	3-230-516-01	SPRING (FLEXIBLE), TENSION	
10	3-045-756-01	SCREW (PANEL)	
* 11	3-230-512-01	BRACKET (MD)	
* 12	3-230-511-01	COVER	
13	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	
14	3-232-431-01	CUSHION (CR60)	
F101	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	

7-2. FRONT PANEL (DSPL) SECTION



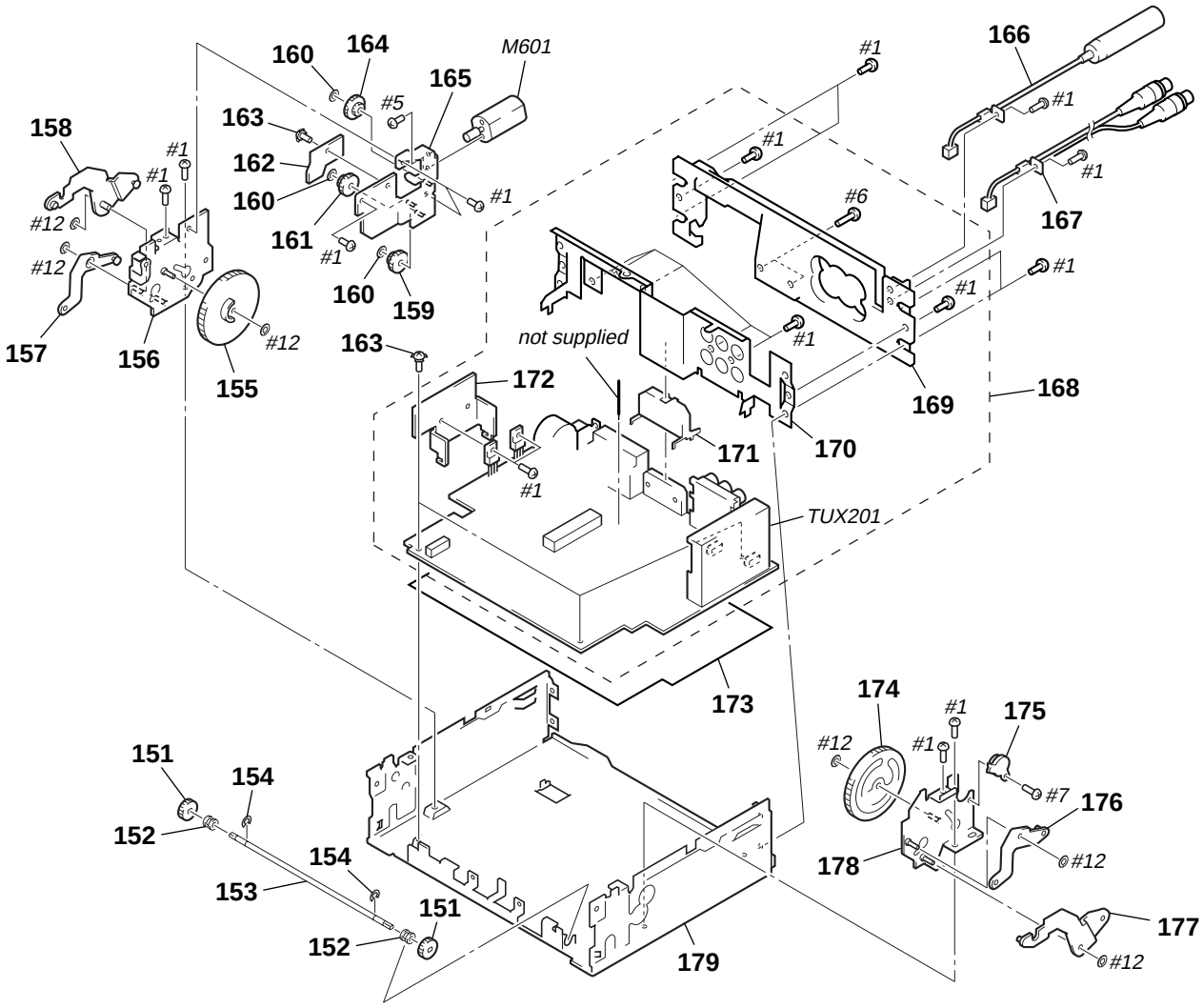
Ref. No.	Part No.	Description	Remark
51	X-3380-903-1	FRONT PANEL (DSPL) SUB ASSY (SERVICE)	
52	3-230-426-01	BUTTON (OPEN)	
53	3-230-422-01	PLATE (LOGO), LIGHT GUIDE	
54	3-230-427-01	BUTTON (RESET-DSPL)	
55	3-230-423-01	FILTER (IR-DSPL)	
56	3-230-470-01	PANEL (FRONT BACK)	
57	3-230-472-01	SPRING (LOCK), TENSION	
58	3-230-471-01	LOCK (DETOUCH)	
59	3-230-378-01	SHEET, INSULATING	
60	3-232-858-01	CUSHION (LIGHT GUIDE PLATE)	
* 61	3-230-469-01	SHEET (DSPL), REFLECTION	
* 62	3-230-467-01	PLATE (LCD-DSPL), LIGHT GUIDE	
63	1-694-806-21	CONDUCTIVE BOARD, CONNECTION	
* 64	3-230-468-01	SHEET (DSPL), DIFFUSION	
* 65	3-230-466-01	HOLDER (LCD-DSPL)	
LCD60	1-804-348-11	DISPLAY PANEL, LIQUID CRYSTAL	

7-3. FRONT PANEL (KEY) SECTION



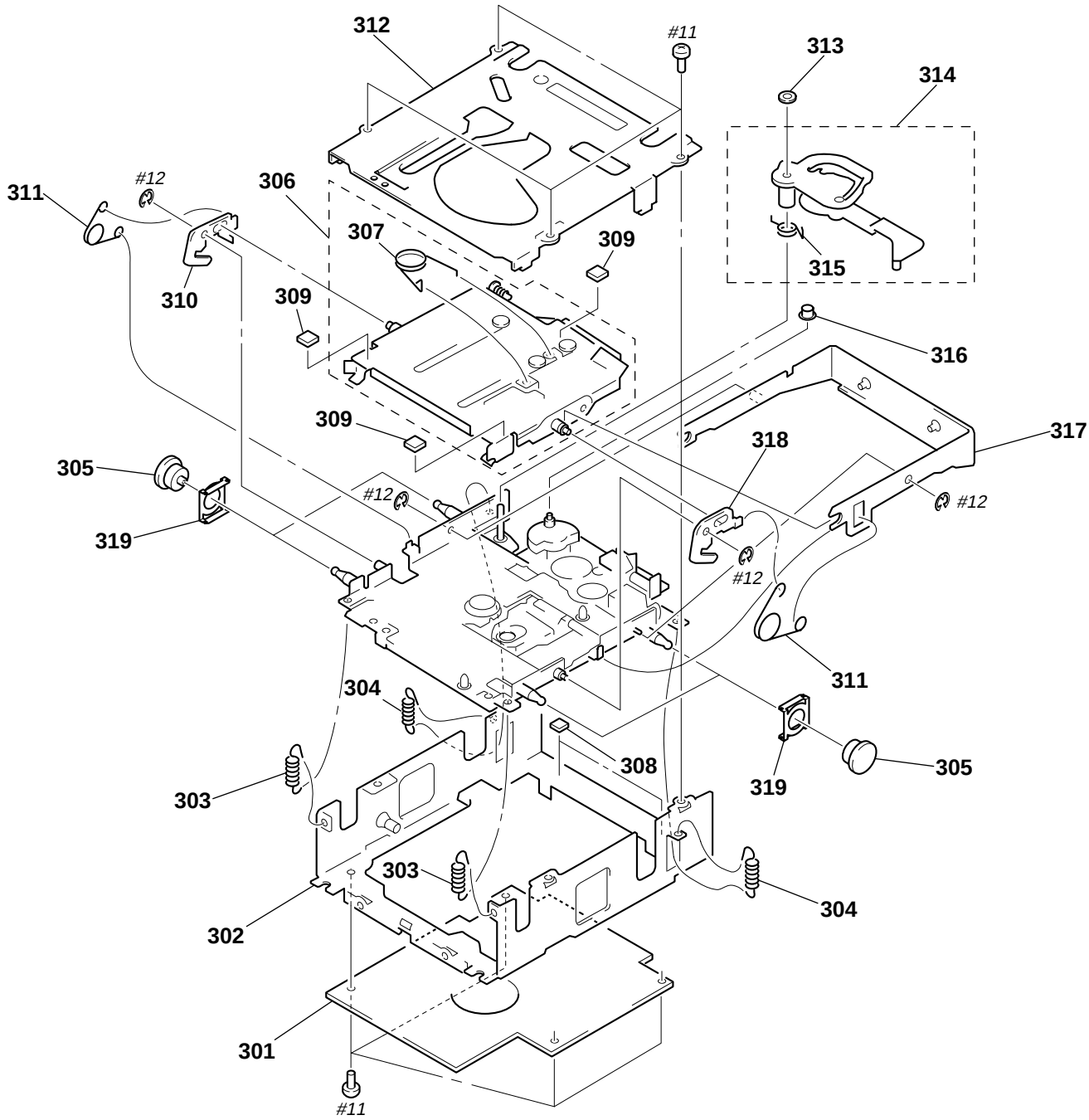
Ref. No.	Part No.	Description	Remark
101	3-230-477-01	BUTTON (+/-)	
102	3-230-478-01	BUTTON (SOURCE)	
103	3-230-485-01	PLATE (RING), LIGHT GUIDE	
104	3-230-484-01	BUTTON (CLOSE)	
105	X-3380-541-1	PANEL (KEY) SUB ASSY, FRONT	
106	3-230-479-11	BUTTON (MODE) (SCRL. DSPL PTY. OFF. MODE)	
107	3-230-398-11	BUTTON (6 KEY) (AF. 1. 2. 3. 4. 5. 6. TA)	
108	3-230-482-01	BUTTON (EQ7) (DSO. EQ7)	
109	3-230-483-01	BUTTON (ENTER) (LIST. ENTER. SOUND. MENU)	
110	3-231-433-01	CUSHION (ELECTROSTATIC)	
111	3-230-480-01	BUTTON (EJECT) (⏏)	
112	3-230-481-01	BUTTON (SEEK) (DISC +. ▶▶I ▶▶. - DISC. I◀◀ ◀◀)	
* 113	A-3283-176-A	KEY BOARD, COMPLETE	
* 114	3-230-486-01	HOLDER (LCD-KEY)	
* 115	3-230-488-01	SHEET (LCD-KEY), DIFFUSION	
116	1-694-808-21	CONDUCTIVE BOARD, CONNECTION	
117	1-694-807-21	CONDUCTIVE BOARD, CONNECTION	
* 118	3-230-487-01	PLATE (LCD-KEY), LIGHT GUIDE	
* 119	3-230-415-01	SHEET (KEY), INSULATING	
120	X-3380-560-1	SPRING (DETOUCH L) ASSY	
121	3-063-745-11	SCREW (+P M2 B TITE)	
122	3-230-416-01	SCREW	
123	2-134-636-31	SCREW (M1.7X2.5)	
124	3-230-490-01	GUIDE (DETOUCH)	
125	X-3380-561-1	SPRING (DETOUCH R) ASSY	
126	X-3380-543-1	PANEL ASSY, BASE	
LCD1	1-804-349-11	DISPLAY PANEL, LIQUID CRYSTAL	

7-4. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
151	3-230-493-01	GEAR (DRIVE SHAFT)	
152	3-230-444-01	GUIDE (DRIVE SHAFT)	
153	3-045-721-01	SHAFT, DRIVE	
154	3-040-692-01	RING, CE TYPE RETAINING	
155	3-230-495-01	CAM (L)	
156	X-3380-544-1	BRACKET (L) ASSY	
157	X-3380-548-1	ARM (B-L) ASSY	
158	X-3380-546-1	ARM (A-L) ASSY	
159	3-230-494-01	GEAR (C)	
160	3-342-940-01	WASHER (M)	
161	3-045-714-01	GEAR (B)	
* 162	1-681-375-11	SW BOARD	
163	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
164	3-045-713-01	GEAR (A)	
* 165	X-3378-711-1	BRACKET (MOTOR) ASSY	
166	1-777-246-41	CORD (WITH CONNECTOR) (ANT)	
167	1-790-375-21	CORD (WITH CONNECTOR) (SUB OUT)	
* 168	A-3283-175-A	MAIN BOARD, COMPLETE	
* 169	3-230-510-31	HEAT SINK	
* 170	3-230-509-01	CHASSIS, BACK	
* 171	3-019-565-01	BRACKET (IC)	
* 172	3-230-513-01	HEAT SINK (REG)	
* 173	3-230-417-01	SHEET, INSULATING	
174	3-230-496-01	CAM (R)	
175	3-030-909-11	DAMPER, OIL	
176	X-3380-549-1	ARM (B-R) ASSY	
177	X-3380-547-1	ARM (A-R) ASSY	
178	X-3380-545-1	BRACKET (R) ASSY	
179	X-3380-559-1	CHASSIS (MD) ASSY	
M601	X-3378-769-1	MOTOR ASSY (SERVICE) (FRONT PANEL OPEN/CLOSE)	
TUX201	A-3282-061-A	TUNER UNIT (TUX-020)	

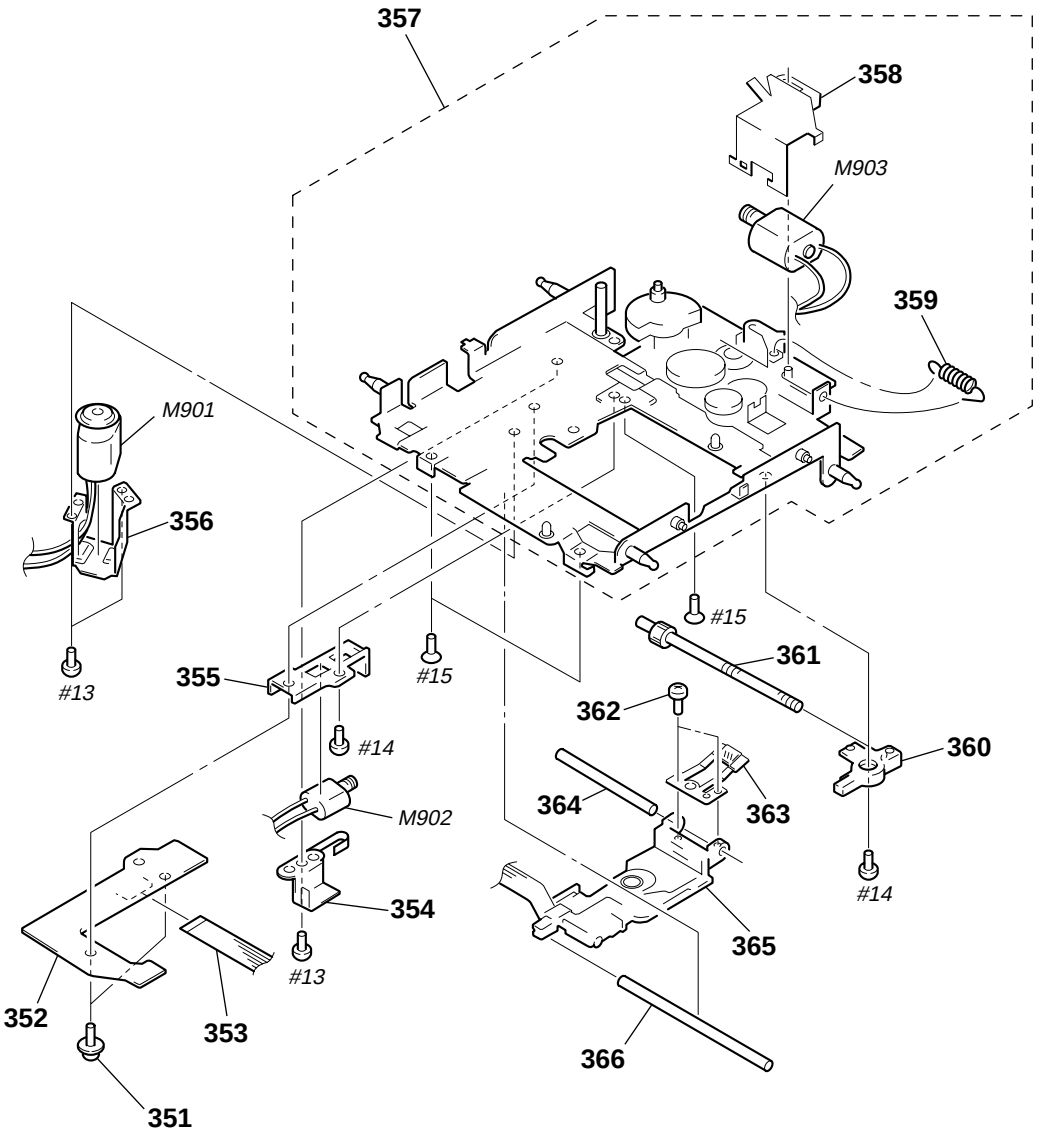
7-5. MECHANISM DECK SECTION-1 (MG-164MA-138)



Ref. No.	Part No.	Description	Remark
* 301	A-3326-729-A	SERVO BOARD, COMPLETE	
* 302	X-3379-367-1	CHASSIS ASSY, MD	
303	3-032-714-01	SPRING (FLOAT F), TENSION	
304	3-921-111-01	SPRING (FLOAT B), TENSION	
305	3-931-897-61	DAMPER (T)	
* 306	X-3376-796-1	HOLDER ASSY	
307	3-032-682-01	SPRING (HOLDER)	
* 308	3-034-301-01	CUSHION (EJ2)	
* 309	3-034-302-01	CUSHION (EJ3)	
* 310	3-032-712-01	LEVER (LOCK R)	

Ref. No.	Part No.	Description	Remark
311	3-919-281-01	SPRING (CHUCKING)	
* 312	X-3379-368-1	COVER ASSY, MD	
313	3-035-932-01	WASHER, STOPPER	
* 314	X-3379-362-1	LEVER (LE23) ASSY	
315	3-032-707-01	SPRING (LEVER LE)	
316	3-925-034-01	ROLLER (GEAR E)	
* 317	X-3376-798-1	ARM ASSY, CHUCKING	
* 318	3-032-711-01	LEVER (LOCK L)	
* 319	3-220-096-01	BRACKET (DAMPER)	

7-6. MECHANISM DECK SECTION-2 (MG-164MA-138)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
351	2-626-617-01	SCREW (2X8)	
352	A-3326-727-A	SENSOR BOARD, COMPLETE	
353	1-757-311-11	CABLE, FLEXIBLE FLAT (11 CORE)	
354	3-919-283-01	BRACKET (SL)	
* 355	3-032-704-01	BASE (SL)	
356	3-919-297-01	BRACKET (SP)	
357	A-3315-218-A	CHASSIS (OP) ASSY	
358	3-032-660-01	BRACKET (LO)	
359	3-032-669-01	SPRING (RACK), TENSION	
* 360	3-032-705-01	BEARING (SL)	
361	X-3373-213-1	SCREW ASSY, FEED	
362	3-939-590-07	SCREW (IB LOCK)	
363	3-010-091-01	SPRING (SL FEED)	
364	3-919-293-01	SHAFT (OPT S), GUIDE	
⚠365	8-583-065-03	OPTICAL PICK-UP KMS-241C/J1RP	
366	3-920-537-01	SHAFT (OPT L), GUIDE	
M901	A-3301-407-A	MOTOR ASSY, SP (SPINDLE)	
M902	A-3291-190-A	MOTOR ASSY, SL (SLED)	
M903	X-3379-451-1	MOTOR ASSY, LO (LOADING)	

SECTION 8
ELECTRICAL PARTS LIST

DISPLAY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		DISPLAY BOARD			
		**********			
	1-694-806-21	CONDUCTIVE BOARD, CONNECTION			
	3-230-378-01	SHEET, INSULATING			
*	3-230-466-01	HOLDER (LCD-DSPL)			
*	3-230-467-01	PLATE (LCD-DSPL), LIGHT GUIDE			
*	3-230-468-01	SHEET (DSPL), DIFFUSION			
*	3-230-469-01	SHEET (DSPL), REFLECTION			
		< CAPACITOR >			
C60	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C61	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C62	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C63	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C64	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C65	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C66	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C67	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C70	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C71	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C72	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C73	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C74	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C75	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C76	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C77	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C78	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C79	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C80	1-164-388-11	CERAMIC CHIP	270PF	5%	50V
C81	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C83	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
		< CONNECTOR >			
CN60	1-815-500-21	PLUG, CONNECTOR 15P			
		< DIODE >			
D61	8-719-422-41	DIODE MA8051-L-TX			
D62	8-719-977-12	DIODE KDZ6.8V			
D63	8-719-977-12	DIODE KDZ6.8V			
D64	8-719-977-12	DIODE KDZ6.8V			
D65	8-719-977-12	DIODE KDZ6.8V			
D66	8-719-977-12	DIODE KDZ6.8V			

Ref. No.	Part No.	Description			Remark
D67	8-719-420-14	DIODE MA8082-M (TX)			
D68	8-719-977-12	DIODE KDZ6.8V			
D70	8-719-083-14	DIODE RRX9000-0501 (REMOTE CONTROL RECEIVER)			
		< FERRITE BEAD >			
FB60	1-500-329-21	FERRITE	0uH		
		< IC >			
IC60	8-759-653-26	IC LC75878W			
IC61	8-759-653-26	IC LC75878W			
IC62	8-759-830-18	IC RRX9000-0601#1			
		< LIQUID CRYSTA LDISPLAY >			
LCD60	1-804-348-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< LED >			
LED60	8-719-079-49	LED LWT673-R1S2-34 (SONY)			
LED62	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED63	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED64	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED65	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED66	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED67	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED68	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
LED69	8-719-076-58	LED NSSW440-BRS (LCD BACK LIGHT)			
		< SWITCH >			
LSW60	1-771-883-11	SWITCH, TACTILE (WITH LED) (OPEN)			
		< TRANSISTOR >			
Q60	8-729-106-60	TRANSISTOR	2SB1132-T101-QR		
Q61	8-729-038-67	TRANSISTOR	KRC102S		
Q62	8-729-904-66	TRANSISTOR	DTD113EK-T-146		
		< RESISTOR >			
R60	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R61	1-216-833-11	METAL CHIP	10K	5%	1/16W
R62	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R63	1-216-037-00	METAL CHIP	330	5%	1/10W
R64	1-216-037-00	METAL CHIP	330	5%	1/10W
R65	1-216-025-11	RES-CHIP	100	5%	1/10W
R66	1-216-025-11	RES-CHIP	100	5%	1/10W

DISPLAY KEY

Ref. No.	Part No.	Description			Remark
R67	1-216-025-11	RES-CHIP	100	5%	1/10W
R68	1-216-025-11	RES-CHIP	100	5%	1/10W
R69	1-216-033-00	METAL CHIP	220	5%	1/10W
R70	1-216-864-11	SHORT	0		
R71	1-216-033-00	METAL CHIP	220	5%	1/10W
R72	1-216-811-11	METAL CHIP	150	5%	1/16W
R73	1-216-805-11	METAL CHIP	47	5%	1/16W
R74	1-216-864-11	SHORT	0		
R76	1-216-841-11	METAL CHIP	47K	5%	1/16W
R77	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R78	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R79	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R80	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R81	1-216-817-11	METAL CHIP	470	5%	1/16W
R82	1-216-809-11	METAL CHIP	100	5%	1/16W
R83	1-216-809-11	METAL CHIP	100	5%	1/16W
R84	1-216-809-11	METAL CHIP	100	5%	1/16W
R85	1-216-841-11	METAL CHIP	47K	5%	1/16W
R86	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R87	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R88	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R89	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R90	1-216-809-11	METAL CHIP	100	5%	1/16W
R91	1-216-809-11	METAL CHIP	100	5%	1/16W
R92	1-216-809-11	METAL CHIP	100	5%	1/16W
R93	1-216-817-11	METAL CHIP	470	5%	1/16W
R94	1-216-864-11	SHORT	0		
R95	1-216-846-11	METAL CHIP	120K	5%	1/16W
R96	1-216-850-11	METAL CHIP	270K	5%	1/16W
R97	1-216-033-00	METAL CHIP	220	5%	1/10W
		< SWITCH >			
S60	1-771-884-11	SWITCH, TACTILE (RESET)			

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*	A-3283-176-A	KEY BOARD, COMPLETE			
		**********			
	1-694-807-21	CONDUCTIVE BOARD, CONNECTION			
	1-694-808-21	CONDUCTIVE BOARD, CONNECTION			
*	3-230-486-01	HOLDER (LCD-KEY)			
*	3-230-487-01	PLATE (LCD-KEY), LIGHT GUIDE			
*	3-230-488-01	SHEET (LCD-KEY), DIFFUSION			
		< CAPACITOR >			
C1	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C4	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C6	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C7	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C8	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C9	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C10	1-162-974-11	CERAMIC CHIP	0.01uF		50V
		< CONNECTOR >			
CN1	1-815-499-21	CONNECTOR, FPC (ZIF) 18P			

Ref. No.	Part No.	Description	Remark
CN2	1-815-501-11	SOCKET, CONNECTOR 15P	
		< DIODE >	
D7	8-719-422-41	DIODE MA8051-L-TX	
D8	8-719-422-80	DIODE MA8075-H-TX	
		< IC >	
IC1	8-759-653-26	IC LC75878W	
		< LIQUID CRYSTAL DISPLAY >	
LCD1	1-804-349-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< LED >	
LED1	8-719-079-26	LED NSSB440-WRST-THR	(LCD BACK LIGHT)
LED2	8-719-079-26	LED NSSB440-WRST-THR	(LCD BACK LIGHT)
LED3	8-719-078-39	LED CL-170SR-CD-T (KEY ILLUMINATION)	
LED4	8-719-078-39	LED CL-170SR-CD-T (KEY ILLUMINATION)	
LED5	8-719-078-39	LED CL-170SR-CD-T (KEY ILLUMINATION)	
LED6	8-719-078-39	LED CL-170SR-CD-T (KEY ILLUMINATION)	
LED7	8-719-078-39	LED CL-170SR-CD-T (CLOSE)	
LED8	8-719-078-39	LED CL-170SR-CD-T (MODE)	
LED9	8-719-078-39	LED CL-170SR-CD-T (⏏)	
LED10	8-719-078-39	LED CL-170SR-CD-T (OFF)	
LED11	8-719-078-39	LED CL-170SR-CD-T (DSPL, PTY)	
LED12	8-719-078-39	LED CL-170SR-CD-T (SCRL)	
LED13	8-719-078-39	LED CL-170SR-CD-T (ENTER)	
LED14	8-719-078-39	LED CL-170SR-CD-T (LIST)	
LED15	8-719-078-39	LED CL-170SR-CD-T (MENU)	
LED16	8-719-078-39	LED CL-170SR-CD-T (SOUND)	
LED17	8-719-078-39	LED CL-170SR-CD-T (DSO)	
LED18	8-719-078-39	LED CL-170SR-CD-T (EQ7)	
		< SWITCH >	
LSW1	1-771-883-11	SWITCH, TACTILE (WITH LED) (–)	
LSW2	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SOUCE)	
LSW5	1-771-883-11	SWITCH, TACTILE (WITH LED) (+)	
LSW6	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (AF)	
LSW7	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (REP 1)	
LSW8	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SHUF 2)	
LSW9	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (3)	
LSW10	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (6)	
LSW11	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (5)	
LSW12	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (4)	
LSW13	1-771-883-11	SWITCH, TACTILE (WITH LED) (⏮ ◀◀)	
LSW15	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (TA)	
LSW18	1-771-883-11	SWITCH, TACTILE (WITH LED) (DISC –)	
LSW20	1-771-883-11	SWITCH, TACTILE (WITH LED) (DISC +)	
LSW22	1-771-883-11	SWITCH, TACTILE (WITH LED) (▶▶ ⏭)	
		< TRANSISTOR >	
Q1	8-729-106-60	TRANSISTOR 2SB1132-T101-QR	
Q2	8-729-038-67	TRANSISTOR KRC102S	
Q3	8-729-904-66	TRANSISTOR DTD113EK-T-146	

KEY | MAIN

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R1	1-216-837-11	METAL CHIP	22K	5%	1/16W
R2	1-216-835-11	METAL CHIP	15K	5%	1/16W
R3	1-216-833-11	METAL CHIP	10K	5%	1/16W
R4	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R5	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R6	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R7	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R8	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R9	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R10	1-216-821-11	METAL CHIP	1K	5%	1/16W
R11	1-216-819-11	METAL CHIP	680	5%	1/16W
R12	1-216-819-11	METAL CHIP	680	5%	1/16W
R13	1-216-819-11	METAL CHIP	680	5%	1/16W
R14	1-216-837-11	METAL CHIP	22K	5%	1/16W
R15	1-216-835-11	METAL CHIP	15K	5%	1/16W
R16	1-216-833-11	METAL CHIP	10K	5%	1/16W
R17	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R18	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R19	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R20	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R21	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R22	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R23	1-216-821-11	METAL CHIP	1K	5%	1/16W
R24	1-216-819-11	METAL CHIP	680	5%	1/16W
R25	1-216-819-11	METAL CHIP	680	5%	1/16W
R26	1-216-819-11	METAL CHIP	680	5%	1/16W
R27	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R28	1-216-833-11	METAL CHIP	10K	5%	1/16W
R29	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R30	1-216-815-11	METAL CHIP	330	5%	1/16W
R31	1-216-033-00	METAL CHIP	220	5%	1/10W
R32	1-216-025-11	RES-CHIP	100	5%	1/10W
R33	1-216-807-11	METAL CHIP	68	5%	1/16W
R34	1-216-035-00	METAL CHIP	270	5%	1/10W
R35	1-216-035-00	METAL CHIP	270	5%	1/10W
R36	1-216-817-11	METAL CHIP	470	5%	1/16W
R37	1-216-033-00	METAL CHIP	220	5%	1/10W
R38	1-216-809-11	METAL CHIP	100	5%	1/16W
R39	1-216-809-11	METAL CHIP	100	5%	1/16W
R40	1-216-809-11	METAL CHIP	100	5%	1/16W
R41	1-216-841-11	METAL CHIP	47K	5%	1/16W
R42	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R43	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R44	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R45	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R47	1-216-033-00	METAL CHIP	220	5%	1/10W
R48	1-216-033-00	METAL CHIP	220	5%	1/10W
R49	1-216-033-00	METAL CHIP	220	5%	1/10W
R51	1-216-033-00	METAL CHIP	220	5%	1/10W
R52	1-216-033-00	METAL CHIP	220	5%	1/10W
R53	1-216-033-00	METAL CHIP	220	5%	1/10W
R54	1-216-033-00	METAL CHIP	220	5%	1/10W
R55	1-216-033-00	METAL CHIP	220	5%	1/10W

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S1	1-786-101-11	SWITCH, DETECTION (DISPLAY PANEL DETACH DETECT)			
S2	1-771-884-11	SWITCH, TACTILE (CLOSE)			
S3	1-692-135-21	SWITCH, KEY BOARD (MODE)			
S4	1-771-884-11	SWITCH, TACTILE (⏏)			
S7	1-692-135-21	SWITCH, KEY BOARD (OFF)			
S8	1-692-135-21	SWITCH, KEY BOARD (SCRL)			
S9	1-692-135-21	SWITCH, KEY BOARD (DSPL, PTY)			
S10	1-692-135-21	SWITCH, KEY BOARD (ENTER)			
S11	1-692-135-21	SWITCH, KEY BOARD (LIST)			
S12	1-692-135-21	SWITCH, KEY BOARD (MENU)			
S13	1-692-135-21	SWITCH, KEY BOARD (SOUND)			
S14	1-771-884-11	SWITCH, TACTILE (WITH LED) (DSO)			
S15	1-771-884-11	SWITCH, TACTILE (WITH LED) (EQ7)			
**********					
*	A-3283-175-A	MAIN BOARD, COMPLETE			
		**********			
*	3-019-565-01	BRACKET (IC)			
*	3-230-509-01	CHASSIS, BACK			
*	3-230-510-31	HEAT SINK			
*	3-230-513-01	HEAT SINK (REG)			
	7-685-792-09	SCREW +PTT 2.6X6 (S)			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< BUZZER >			
BZ501	1-504-920-11	BUZZER			
		< CAPACITOR >			
C57	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C58	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C101	1-124-570-11	ELECT	220uF	20%	16V
C103	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C104	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C105	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C106	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C107	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C108	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C109	1-126-176-11	ELECT	220uF	20%	10V
C110	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C111	1-115-156-11	CERAMIC CHIP	1uF		10V
C112	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C113	1-126-176-11	ELECT	220uF	20%	10V
C115	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C116	1-126-176-11	ELECT	220uF	20%	10V
C117	1-126-176-11	ELECT	220uF	20%	10V
C118	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C119	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C120	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C121	1-128-057-11	ELECT	330uF	20%	6.3V
C122	1-110-654-11	DOUBLE LAYER	0.047F		5V
C123	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C124	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C125	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C126	1-124-937-11	ELECT	10uF	20%	16V
C127	1-164-156-11	CERAMIC CHIP	0.1uF		25V

MAIN

Ref. No.	Part No.	Description			Remark
C128	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C201	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C202	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C205	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C206	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C207	1-124-589-11	ELECT	47uF	20%	16V
C208	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C209	1-104-942-11	ELECT	1uF	20%	50V
C210	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C211	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C212	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C213	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C214	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C215	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C216	1-104-664-11	ELECT	47uF	20%	10V
C217	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C218	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C219	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C220	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C221	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C222	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C223	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C224	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C225	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C226	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C227	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C228	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C229	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C230	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C231	1-126-786-11	ELECT	47uF	20%	16V
C301	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C302	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C303	1-136-154-00	FILM	0.012uF	5%	50V
C304	1-136-154-00	FILM	0.012uF	5%	50V
C305	1-124-233-11	ELECT	10uF	20%	16V
C306	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C307	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C308	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C313	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C314	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C315	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C316	1-124-937-11	ELECT	10uF	20%	16V
C317	1-124-233-11	ELECT	10uF	20%	16V
C318	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C319	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C320	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C323	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C324	1-124-233-11	ELECT	10uF	20%	16V
C325	1-126-157-11	ELECT	10uF	20%	16V
C328	1-124-233-11	ELECT	10uF	20%	16V
C329	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C332	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C333	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C335	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C337	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C338	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C341	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C343	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C344	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C345	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C347	1-124-465-00	ELECT	0.47uF	20%	50V
C348	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C349	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C350	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C353	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C357	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C358	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C359	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C360	1-126-898-11	ELECT	220uF	20%	10V
C361	1-124-233-11	ELECT	10uF	20%	16V
C363	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C364	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C365	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C366	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C369	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C371	1-104-942-11	ELECT	1uF	20%	50V
C373	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C374	1-126-786-11	ELECT	47uF	20%	16V
C375	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C376	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C377	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C378	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C379	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C380	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C381	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C382	1-126-176-11	ELECT	220uF	20%	10V
C383	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C384	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C385	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C386	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C387	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C388	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C403	1-135-473-21	ELECT	3300uF	20%	16V
C406	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C407	1-126-572-11	ELECT	4.7uF	20%	35V
C451	1-124-234-00	ELECT	22uF	20%	16V
C454	1-128-057-11	ELECT	330uF	20%	6.3V
C457	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C501	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C502	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C503	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C505	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C506	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C507	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C508	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C509	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C510	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C511	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C514	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C515	1-124-584-00	ELECT	100uF	20%	10V
C516	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C517	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C602	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

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Ref. No.	Part No.	Description			Remark
C603	1-126-934-11	ELECT	220uF	20%	16V
C650	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C651	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C652	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C653	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C655	1-124-589-11	ELECT	47uF	20%	16V
C656	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C657	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C658	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C659	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C660	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C701	1-124-589-11	ELECT	47uF	20%	16V
C703	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C704	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C705	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C706	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C707	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C708	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C709	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C710	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C711	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C712	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C801	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C802	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C813	1-115-156-11	CERAMIC CHIP	1uF		10V
C814	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-774-701-11	PIN, CONNECTOR 16P			
* CN201	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P			
* CN301	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P			
CN302	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN, AUDIO OUT)			
CN401	1-764-617-12	PIN, CONNECTOR (PC BOARD) 30P			
CN601	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
CN602	1-568-955-11	PIN, CONNECTOR 6P			
CN603	1-563-614-31	CONNECTOR, FLEXIBLE 11P			
CN604	1-815-499-21	CONNECTOR, FPC (ZIF) 18P			
		< DIODE >			
D101	8-719-055-30	DIODE	D1FS4A-TA		
D102	8-719-055-30	DIODE	D1FS4A-TA		
D104	8-719-801-78	DIODE	MA152WK-TX		
D105	8-719-060-81	DIODE	MA735-TX		
D106	8-719-053-18	DIODE	1SR154-400TE-25		
D107	8-719-422-62	DIODE	MA8062-L-TX		
D109	8-719-977-03	DIODE	MA8056-M-TX		
D202	8-719-988-61	DIODE	1SS355TE-17		
D203	8-719-422-41	DIODE	MA8051-L-TX		
D204	8-719-800-76	DIODE	MA153-TX		
D205	8-719-422-41	DIODE	MA8051-L-TX		
D301	8-719-074-47	DIODE	CRS02 (TE85L)		
D302	8-719-074-47	DIODE	CRS02 (TE85L)		
D303	8-719-074-47	DIODE	CRS02 (TE85L)		
D304	8-719-074-47	DIODE	CRS02 (TE85L)		
D305	8-719-074-47	DIODE	CRS02 (TE85L)		
D306	8-719-074-47	DIODE	CRS02 (TE85L)		
D307	8-719-074-47	DIODE	CRS02 (TE85L)		
D308	8-719-074-47	DIODE	CRS02 (TE85L)		

Ref. No.	Part No.	Description		Remark
D309	8-719-801-78	DIODE	MA152WK-TX	
D311	8-719-988-61	DIODE	1SS355TE-17	
D401	8-719-049-38	DIODE	1N5404TU	
D404	8-719-977-12	DIODE	KDZ6.8V	
D405	8-719-053-18	DIODE	1SR154-400TE-25	
D406	8-719-053-18	DIODE	1SR154-400TE-25	
D407	8-719-988-61	DIODE	1SS355TE-17	
D451	8-719-053-18	DIODE	1SR154-400TE-25	
D501	8-719-988-61	DIODE	1SS355TE-17	
D502	8-719-988-61	DIODE	1SS355TE-17	
D503	8-719-988-61	DIODE	1SS355TE-17	
D504	8-719-422-41	DIODE	MA8051-L-TX	
D505	8-719-988-61	DIODE	1SS355TE-17	
D506	8-719-988-61	DIODE	1SS355TE-17	
D507	8-719-801-78	DIODE	MA152WK-TX	
D508	8-719-988-61	DIODE	1SS355TE-17	
D509	8-719-988-61	DIODE	1SS355TE-17	
D510	8-719-988-61	DIODE	1SS355TE-17	
D511	8-719-988-61	DIODE	1SS355TE-17	
D602	8-719-017-95	DIODE	KDZ18V	
D603	8-719-977-12	DIODE	MA8068-M-TX	
D604	8-719-017-95	DIODE	KDZ18V	
D605	8-719-420-51	DIODE	MA729-TX	
D606	8-719-988-61	DIODE	1SS355TE-17	
D607	8-719-017-95	DIODE	KDZ18V	
D608	8-719-988-61	DIODE	1SS355TE-17	
D609	8-719-801-78	DIODE	MA152WK-TX	
D610	8-719-977-12	DIODE	KDZ6.8V	
D611	8-719-977-12	DIODE	KDZ6.8V	
D612	8-719-988-61	DIODE	1SS355TE-17	
D650	8-719-081-98	DIODE	MM3Z6V8T1	
D651	8-719-801-78	DIODE	MA152WK-TX	
D652	8-719-820-05	DIODE	MA152WA-TX	
D801	8-719-977-12	DIODE	KDZ6.8V	
D802	8-719-078-81	DIODE	DF5A6.8FU (TE85R)	
D803	8-719-988-61	DIODE	1SS355TE-17	
D804	8-719-423-32	DIODE	MA8120-M-TX	
D805	8-719-078-81	DIODE	DF5A6.8FU (TE85R)	
D806	8-719-078-81	DIODE	DF5A6.8FU (TE85R)	
D807	8-719-988-61	DIODE	1SS355TE-17	
		< FERRITE BEAD >		
FB706	1-414-385-11	FERRITE BEAD		
FB707	1-414-385-11	FERRITE BEAD		
		< IC >		
IC101	8-759-990-43	IC	TL1451ACDB-E20	
IC102	8-759-836-78	IC	RN5VD53AA-TL	
IC201	8-759-909-71	IC	BA4558F-T1	
IC202	8-759-492-59	IC	SAA6588T-118	
IC301	8-759-422-21	IC	NJM4580V (TE2)	
IC302	8-759-422-21	IC	NJM4580V (TE2)	
IC305	8-759-827-13	IC	TDA7406T	
IC309	8-759-827-14	IC	TA8268AH	
IC310	8-759-422-21	IC	NJM4580V (TE2)	
IC501	6-700-183-01	IC	MB90574BPMT-G-322-BND	
IC502	8-759-828-22	IC	XC61CN4102MR	

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Ref. No.	Part No.	Description	Remark
IC601	8-759-449-89	IC BA8270F-E2	
IC650	8-759-337-40	IC NJM2904V (TE2)	
IC651	8-759-580-33	IC BA6288FS-E2	
IC652	8-759-668-14	IC PQ09DZ1U	
IC701	8-759-277-63	IC TC7W14FU (TE12R)	
IC702	6-700-210-01	IC HD6432355A36F	
IC801	8-759-830-17	IC RRX9000-0401R#01	
		< JACK >	
J651	1-566-822-41	JACK (REMOTE IN)	
		< COIL/SHORT >	
L101	1-419-506-11	INDUCTOR 150uH	
L102	1-414-392-41	INDUCTOR 1uH	
L103	1-419-506-11	INDUCTOR 150uH	
L104	1-414-394-41	INDUCTOR 2.2uH	
L105	1-414-394-41	INDUCTOR 2.2uH	
L201	1-216-295-11	SHORT 0	
L401	1-419-476-31	INDUCTOR 250uH	
L501	1-414-185-51	INDUCTOR 22uH	
L701	1-414-856-51	INDUCTOR 10uH	
		< TRANSISTOR >	
Q101	8-729-038-68	TRANSISTOR KRC103S	
Q102	8-729-038-55	TRANSISTOR KRA103S	
Q103	8-729-820-46	TRANSISTOR 2SB1202FAST-TL	
Q105	8-729-034-49	TRANSISTOR KRC104S	
Q106	8-729-820-46	TRANSISTOR 2SB1202FAST-TL	
Q107	8-729-038-68	TRANSISTOR KRC103S	
Q108	8-729-106-60	TRANSISTOR 2SB1132-T100-R	
Q109	8-729-106-60	TRANSISTOR 2SB1132-T100-R	
Q110	8-729-106-60	TRANSISTOR 2SB1132-T100-R	
Q111	8-729-038-68	TRANSISTOR KRC103S	
Q112	8-729-038-68	TRANSISTOR KRC103S	
Q113	8-729-040-17	TRANSISTOR 2SD2164-K	
Q114	8-729-106-60	TRANSISTOR 2SB1132-T100-R	
Q115	8-729-038-67	TRANSISTOR KRC102S	
Q116	8-729-034-49	TRANSISTOR KRC104S	
Q117	8-729-038-67	TRANSISTOR KRC102S	
Q118	8-759-068-54	TRANSISTOR KRA102S	
Q119	8-729-019-00	TRANSISTOR 2SD2394-G	
Q201	8-729-920-85	TRANSISTOR 2SD1664-T101-QR	
Q202	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q203	8-729-038-67	TRANSISTOR KRC102S	
Q301	8-729-920-21	TRANSISTOR DTC314TK-T-146	
Q302	8-729-920-21	TRANSISTOR DTC314TK-T-146	
Q303	8-729-920-21	TRANSISTOR DTC314TK-T-146	
Q304	8-729-920-21	TRANSISTOR DTC314TK-T-146	
Q305	8-729-920-21	TRANSISTOR DTC314TK-T-146	
Q309	8-729-144-85	FET 2SK1133-T1B	
Q310	8-729-038-56	TRANSISTOR KRA104S	
Q312	8-729-034-49	TRANSISTOR KRC104S	
Q401	8-729-049-13	FET UPA1853GR-9JG-E1	
Q402	8-729-038-68	TRANSISTOR KRC103S	
Q404	8-729-038-68	TRANSISTOR KRC103S	
Q405	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q406	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q407	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	

Ref. No.	Part No.	Description	Remark
Q451	8-729-106-60	TRANSISTOR 2SB1132-T100-R	
Q452	8-729-038-67	TRANSISTOR KRC102S	
Q501	8-759-068-54	TRANSISTOR KRA102S	
Q502	8-729-038-67	TRANSISTOR KRC102S	
Q602	8-729-038-56	TRANSISTOR KRA104S	
Q603	8-729-038-67	TRANSISTOR KRC102S	
Q650	8-729-038-68	TRANSISTOR KRC103S	
Q651	8-729-120-28	TRANSISTOR 2SC2412K-T-146-R	
Q652	8-729-216-22	TRANSISTOR 2SA1037K-T-146-S	
		< RESISTOR >	
R51	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R101	1-216-809-11	METAL CHIP 100 5% 1/16W	
R102	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R103	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R104	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R105	1-216-809-11	METAL CHIP 100 5% 1/16W	
R106	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R107	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R108	1-218-861-11	METAL CHIP 3.9K 0.5% 1/16W	
R109	1-218-847-11	METAL CHIP 1K 0.5% 1/16W	
R110	1-218-873-11	METAL CHIP 12K 0.5% 1/16W	
R111	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R112	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R113	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R114	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R115	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R116	1-218-897-11	METAL CHIP 120K 0.5% 1/16W	
R117	1-216-864-11	SHORT 0	
R118	1-216-809-11	METAL CHIP 100 5% 1/16W	
R119	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R120	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R121	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R122	1-216-809-11	METAL CHIP 100 5% 1/16W	
R123	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R124	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R125	1-218-847-11	METAL CHIP 1K 0.5% 1/16W	
R126	1-218-866-11	METAL CHIP 6.2K 0.5% 1/16W	
R127	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R128	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R129	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R130	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R131	1-216-829-11	METAL CHIP 4.7K 5% 1/16W	
R132	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R133	1-216-835-11	METAL CHIP 15K 5% 1/16W	
R134	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R135	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R136	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R137	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R138	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R139	1-216-864-11	SHORT 0	
R140	1-216-864-11	SHORT 0	
R141	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R201	1-216-001-00	METAL CHIP 10 5% 1/10W	
R202	1-216-864-11	SHORT 0	
R203	1-216-864-11	SHORT 0	
R204	1-216-817-11	METAL CHIP 470 5% 1/16W	

MAIN

Ref. No.	Part No.	Description			Remark
R205	1-216-833-11	METAL CHIP	10K	5%	1/16W
R206	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R207	1-216-809-11	METAL CHIP	100	5%	1/16W
R208	1-216-845-11	METAL CHIP	100K	5%	1/16W
R209	1-216-295-11	SHORT	0		
R210	1-216-833-11	METAL CHIP	10K	5%	1/16W
R211	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R212	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R213	1-216-857-11	METAL CHIP	1M	5%	1/16W
R214	1-216-809-11	METAL CHIP	100	5%	1/16W
R215	1-216-853-11	METAL CHIP	470K	5%	1/16W
R216	1-216-817-11	METAL CHIP	470	5%	1/16W
R217	1-216-797-11	METAL CHIP	10	5%	1/16W
R218	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R219	1-216-821-11	METAL CHIP	1K	5%	1/16W
R220	1-216-797-11	METAL CHIP	10	5%	1/16W
R221	1-216-864-11	SHORT	0		
R222	1-216-864-11	SHORT	0		
R301	1-216-821-11	METAL CHIP	1K	5%	1/16W
R302	1-216-833-11	METAL CHIP	10K	5%	1/16W
R303	1-216-864-11	SHORT	0		
R304	1-216-833-11	METAL CHIP	10K	5%	1/16W
R305	1-216-864-11	SHORT	0		
R306	1-216-864-11	SHORT	0		
R307	1-216-833-11	METAL CHIP	10K	5%	1/16W
R308	1-216-833-11	METAL CHIP	10K	5%	1/16W
R309	1-216-833-11	METAL CHIP	10K	5%	1/16W
R310	1-216-833-11	METAL CHIP	10K	5%	1/16W
R311	1-216-864-11	SHORT	0		
R312	1-216-821-11	METAL CHIP	1K	5%	1/16W
R313	1-216-833-11	METAL CHIP	10K	5%	1/16W
R314	1-216-809-11	METAL CHIP	100	5%	1/16W
R316	1-216-833-11	METAL CHIP	10K	5%	1/16W
R317	1-216-841-11	METAL CHIP	47K	5%	1/16W
R324	1-216-841-11	METAL CHIP	47K	5%	1/16W
R325	1-216-809-11	METAL CHIP	100	5%	1/16W
R326	1-216-809-11	METAL CHIP	100	5%	1/16W
R327	1-216-841-11	METAL CHIP	47K	5%	1/16W
R329	1-216-841-11	METAL CHIP	47K	5%	1/16W
R330	1-216-833-11	METAL CHIP	10K	5%	1/16W
R335	1-216-833-11	METAL CHIP	10K	5%	1/16W
R338	1-216-809-11	METAL CHIP	100	5%	1/16W
R339	1-216-833-11	METAL CHIP	10K	5%	1/16W
R340	1-216-833-11	METAL CHIP	10K	5%	1/16W
R341	1-216-809-11	METAL CHIP	100	5%	1/16W
R342	1-216-841-11	METAL CHIP	47K	5%	1/16W
R343	1-216-864-11	SHORT	0		
R344	1-216-864-11	SHORT	0		
R345	1-216-864-11	SHORT	0		
R346	1-216-864-11	SHORT	0		
R347	1-216-864-11	SHORT	0		
R348	1-216-864-11	SHORT	0		
R349	1-216-864-11	SHORT	0		
R356	1-216-813-11	METAL CHIP	220	5%	1/16W
R357	1-216-813-11	METAL CHIP	220	5%	1/16W
R358	1-216-813-11	METAL CHIP	220	5%	1/16W
R360	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R361	1-216-813-11	METAL CHIP	220	5%	1/16W
R363	1-216-845-11	METAL CHIP	100K	5%	1/16W
R364	1-216-813-11	METAL CHIP	220	5%	1/16W
R372	1-216-864-11	SHORT	0		
R373	1-216-864-11	SHORT	0		
R374	1-216-841-11	METAL CHIP	47K	5%	1/16W
R376	1-216-841-11	METAL CHIP	47K	5%	1/16W
R377	1-216-864-11	SHORT	0		
R379	1-216-805-11	METAL CHIP	47	5%	1/16W
R380	1-216-841-11	METAL CHIP	47K	5%	1/16W
R382	1-216-817-11	METAL CHIP	470	5%	1/16W
R389	1-216-864-11	SHORT	0		
R390	1-216-841-11	METAL CHIP	47K	5%	1/16W
R391	1-216-821-11	METAL CHIP	1K	5%	1/16W
R393	1-216-821-11	METAL CHIP	1K	5%	1/16W
R395	1-216-821-11	METAL CHIP	1K	5%	1/16W
R397	1-216-821-11	METAL CHIP	1K	5%	1/16W
R401	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R402	1-216-821-11	METAL CHIP	1K	5%	1/16W
R403	1-216-073-00	METAL CHIP	10K	5%	1/10W
R404	1-216-073-00	METAL CHIP	10K	5%	1/10W
R405	1-216-833-11	METAL CHIP	10K	5%	1/16W
R406	1-216-833-11	METAL CHIP	10K	5%	1/16W
R409	1-216-073-00	METAL CHIP	10K	5%	1/10W
R410	1-216-073-00	METAL CHIP	10K	5%	1/10W
R411	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R413	1-216-841-11	METAL CHIP	47K	5%	1/16W
R414	1-216-841-11	METAL CHIP	47K	5%	1/16W
R415	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R416	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R417	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R418	1-216-833-11	METAL CHIP	10K	5%	1/16W
R419	1-216-833-11	METAL CHIP	10K	5%	1/16W
R420	1-216-841-11	METAL CHIP	47K	5%	1/16W
R421	1-216-837-11	METAL CHIP	22K	5%	1/16W
R422	1-216-845-11	METAL CHIP	100K	5%	1/16W
R423	1-216-833-11	METAL CHIP	10K	5%	1/16W
R424	1-216-833-11	METAL CHIP	10K	5%	1/16W
R425	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R451	1-216-295-11	SHORT	0		
R454	1-216-295-11	SHORT	0		
R458	1-216-833-11	METAL CHIP	10K	5%	1/16W
R459	1-216-049-11	RES-CHIP	1K	5%	1/10W
R500	1-216-864-11	SHORT	0		
R501	1-216-837-11	METAL CHIP	22K	5%	1/16W
R502	1-216-821-11	METAL CHIP	1K	5%	1/16W
R503	1-216-864-11	SHORT	0		
R504	1-216-833-11	METAL CHIP	10K	5%	1/16W
R505	1-216-845-11	METAL CHIP	100K	5%	1/16W
R506	1-216-833-11	METAL CHIP	10K	5%	1/16W
R507	1-216-833-11	METAL CHIP	10K	5%	1/16W
R508	1-216-845-11	METAL CHIP	100K	5%	1/16W
R509	1-216-821-11	METAL CHIP	1K	5%	1/16W
R510	1-216-821-11	METAL CHIP	1K	5%	1/16W
R511	1-216-853-11	METAL CHIP	470K	5%	1/16W
R512	1-216-815-11	METAL CHIP	330	5%	1/16W
R513	1-216-821-11	METAL CHIP	1K	5%	1/16W
R514	1-216-841-11	METAL CHIP	47K	5%	1/16W

MAIN

Ref. No.	Part No.	Description			Remark
R515	1-216-821-11	METAL CHIP	1K	5%	1/16W
R516	1-216-864-11	SHORT	0		
R517	1-216-821-11	METAL CHIP	1K	5%	1/16W
R518	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R519	1-216-813-11	METAL CHIP	220	5%	1/16W
R520	1-216-821-11	METAL CHIP	1K	5%	1/16W
R521	1-216-864-11	SHORT	0		
R522	1-216-864-11	SHORT	0		
R523	1-216-864-11	SHORT	0		
R526	1-216-845-11	METAL CHIP	100K	5%	1/16W
R527	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R528	1-216-845-11	METAL CHIP	100K	5%	1/16W
R529	1-216-845-11	METAL CHIP	100K	5%	1/16W
R533	1-216-845-11	METAL CHIP	100K	5%	1/16W
R535	1-216-845-11	METAL CHIP	100K	5%	1/16W
R536	1-216-845-11	METAL CHIP	100K	5%	1/16W
R537	1-216-845-11	METAL CHIP	100K	5%	1/16W
R538	1-216-845-11	METAL CHIP	100K	5%	1/16W
R539	1-216-845-11	METAL CHIP	100K	5%	1/16W
R540	1-216-845-11	METAL CHIP	100K	5%	1/16W
R541	1-216-845-11	METAL CHIP	100K	5%	1/16W
R542	1-216-845-11	METAL CHIP	100K	5%	1/16W
R543	1-216-845-11	METAL CHIP	100K	5%	1/16W
R544	1-216-853-11	METAL CHIP	470K	5%	1/16W
R545	1-216-845-11	METAL CHIP	100K	5%	1/16W
R546	1-216-845-11	METAL CHIP	100K	5%	1/16W
R547	1-216-821-11	METAL CHIP	1K	5%	1/16W
R548	1-216-864-11	SHORT	0		
R549	1-216-845-11	METAL CHIP	100K	5%	1/16W
R550	1-216-821-11	METAL CHIP	1K	5%	1/16W
R551	1-216-821-11	METAL CHIP	1K	5%	1/16W
R552	1-216-821-11	METAL CHIP	1K	5%	1/16W
R553	1-216-821-11	METAL CHIP	1K	5%	1/16W
R601	1-216-841-11	METAL CHIP	47K	5%	1/16W
R602	1-216-809-11	METAL CHIP	100	5%	1/16W
R603	1-216-809-11	METAL CHIP	100	5%	1/16W
R604	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R605	1-216-821-11	METAL CHIP	1K	5%	1/16W
R606	1-216-809-11	METAL CHIP	100	5%	1/16W
R607	1-216-809-11	METAL CHIP	100	5%	1/16W
R608	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R650	1-216-833-11	METAL CHIP	10K	5%	1/16W
R651	1-216-836-11	METAL CHIP	18K	5%	1/16W
R652	1-216-821-11	METAL CHIP	1K	5%	1/16W
R653	1-216-845-11	METAL CHIP	100K	5%	1/16W
R654	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R655	1-216-837-11	METAL CHIP	22K	5%	1/16W
R656	1-216-304-11	METAL CHIP	3.3	5%	1/10W
R657	1-216-839-11	METAL CHIP	33K	5%	1/16W
R658	1-216-304-11	METAL CHIP	3.3	5%	1/10W
R659	1-216-304-11	METAL CHIP	3.3	5%	1/10W
R660	1-216-809-11	METAL CHIP	100	5%	1/16W
R661	1-216-809-11	METAL CHIP	100	5%	1/16W
R662	1-216-304-11	METAL CHIP	3.3	5%	1/10W
R701	1-216-821-11	METAL CHIP	1K	5%	1/16W
R702	1-216-821-11	METAL CHIP	1K	5%	1/16W
R703	1-216-821-11	METAL CHIP	1K	5%	1/16W
R704	1-216-821-11	METAL CHIP	1K	5%	1/16W
R705	1-216-821-11	METAL CHIP	1K	5%	1/16W
R708	1-216-821-11	METAL CHIP	1K	5%	1/16W
R709	1-216-864-11	SHORT	0		
R711	1-216-864-11	SHORT	0		
R712	1-216-845-11	METAL CHIP	100K	5%	1/16W
R713	1-216-864-11	SHORT	0		
R714	1-216-821-11	METAL CHIP	1K	5%	1/16W
R715	1-216-864-11	SHORT	0		
R716	1-216-821-11	METAL CHIP	1K	5%	1/16W
R717	1-216-845-11	METAL CHIP	100K	5%	1/16W
R718	1-216-845-11	METAL CHIP	100K	5%	1/16W
R719	1-216-845-11	METAL CHIP	100K	5%	1/16W
R722	1-216-845-11	METAL CHIP	100K	5%	1/16W
R723	1-216-845-11	METAL CHIP	100K	5%	1/16W
R724	1-216-845-11	METAL CHIP	100K	5%	1/16W
R725	1-216-845-11	METAL CHIP	100K	5%	1/16W
R726	1-216-833-11	METAL CHIP	10K	5%	1/16W
R727	1-216-845-11	METAL CHIP	100K	5%	1/16W
R801	1-216-821-11	METAL CHIP	1K	5%	1/16W
R802	1-216-821-11	METAL CHIP	1K	5%	1/16W
R803	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R804	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R805	1-216-845-11	METAL CHIP	100K	5%	1/16W
R806	1-216-821-11	METAL CHIP	1K	5%	1/16W
R807	1-216-809-11	METAL CHIP	100	5%	1/16W
R808	1-216-809-11	METAL CHIP	100	5%	1/16W
R809	1-216-821-11	METAL CHIP	1K	5%	1/16W
R810	1-216-821-11	METAL CHIP	1K	5%	1/16W
R811	1-216-821-11	METAL CHIP	1K	5%	1/16W
R812	1-216-821-11	METAL CHIP	1K	5%	1/16W
R813	1-216-821-11	METAL CHIP	1K	5%	1/16W
R814	1-216-817-11	METAL CHIP	470	5%	1/16W
R815	1-216-845-11	METAL CHIP	100K	5%	1/16W
R816	1-216-813-11	METAL CHIP	220	5%	1/16W
R817	1-216-821-11	METAL CHIP	1K	5%	1/16W
R818	1-216-841-11	METAL CHIP	47K	5%	1/16W
R819	1-216-845-11	METAL CHIP	100K	5%	1/16W
R820	1-216-845-11	METAL CHIP	100K	5%	1/16W
R821	1-216-845-11	METAL CHIP	100K	5%	1/16W
R822	1-216-845-11	METAL CHIP	100K	5%	1/16W
R823	1-216-821-11	METAL CHIP	1K	5%	1/16W
R824	1-216-817-11	METAL CHIP	470	5%	1/16W
R825	1-216-857-11	METAL CHIP	1M	5%	1/16W
R827	1-216-845-11	METAL CHIP	100K	5%	1/16W
R828	1-216-821-11	METAL CHIP	1K	5%	1/16W
R830	1-216-845-11	METAL CHIP	100K	5%	1/16W
		< THERMISTOR >			
TH101	1-810-940-11	THERMISTOR, POSITIVE			
TH102	1-810-940-11	THERMISTOR, POSITIVE			
TH601	1-801-792-21	THERMISTOR, POSITIVE			
		< TUNER UNIT >			
TUX201	A-3282-061-A	TUNER UNIT (TUX-020)			
		< VIBRATOR >			
X201	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz)			

Ref. No.	Part No.	Description			Remark
X501	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X503	1-767-993-31	VIBRATOR, CRYSTAL (3.68MHz)			
X701	1-781-822-21	VIBRATOR, CERAMIC (18.432MHz)			
X801	1-781-282-11	VIBRATOR, CERAMIC (4MHz)			
**********					
	A-3326-727-A	SENSOR BOARD, COMPLETE			
		**********			
For the parts on the SENSOR board, replace the entire mounted board.					
**********					
*	A-3326-729-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C10	1-164-362-11	CERAMIC CHIP	470PF	5%	50V
C11	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C101	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C102	1-135-259-11	TANTALUM CHIP	10uF	20%	6.3V
C103	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C104	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C105	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C106	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V
C107	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C108	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C109	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V
C201	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C202	1-135-259-11	TANTALUM CHIP	10uF	20%	6.3V
C301	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C305	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C306	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C307	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C308	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C309	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C310	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C311	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C314	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C315	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C316	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C317	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C318	1-104-852-11	TANTALUM CHIP	22uF	20%	6.3V
C319	1-104-852-11	TANTALUM CHIP	22uF	20%	6.3V
C320	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C321	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C322	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C324	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C325	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C326	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C327	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C328	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C329	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C330	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C331	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C333	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C336	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C339	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C342	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C344	1-104-852-11	TANTALUM CHIP	22uF	20%	6.3V
C345	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C346	1-104-852-11	TANTALUM CHIP	22uF	20%	6.3V
C347	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C349	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C350	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C351	1-104-852-11	TANTALUM CHIP	22uF	20%	10V
C352	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C353	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C356	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C357	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C358	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C359	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C362	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C363	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C401	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C402	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C403	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C501	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C503	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C504	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C505	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C506	1-104-852-11	TANTALUM CHIP	22uF	20%	10V
C510	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C511	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C513	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C514	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C515	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C516	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN101	1-815-352-11	CONNECTOR, BOARD TO BOARD 30P			
CN102	1-573-929-21	CONNECTOR, FFC/FPC (ZIF) 20P			
* CN103	1-573-920-11	CONNECTOR, FFC/FPC (ZIF) 11P			
		< DIODE >			
D301	8-719-977-03	DIODE DTZ5.6B			
D401	8-719-157-93	DIODE RD3.0SB2			
		< IC >			
IC101	8-759-571-84	IC PCM1718E/2K			
IC301	8-752-404-64	IC CXD2662R			
IC302	8-752-080-95	IC CXA2523AR			
IC303	8-759-685-74	IC BH6518FS-E2			
IC304	8-759-096-87	IC TC7WU04FU (TE12R)			
IC305	8-759-040-83	IC BA6287F			
IC307	8-759-671-27	IC MSM51V4400E-70TS-K			
IC401	8-759-385-17	IC NJM4580E (TE2)			
IC501	8-752-921-42	IC CXP84340-231Q			
IC502	8-759-321-61	IC HD74HC244FP-EL			
		< COIL >			
L101	1-412-058-11	INDUCTOR CHIP 10uH			
L102	1-412-058-11	INDUCTOR CHIP 10uH			
L301	1-412-058-11	INDUCTOR CHIP 10uH			
L302	1-412-058-11	INDUCTOR CHIP 10uH			
L501	1-412-058-11	INDUCTOR CHIP 10uH			

SERVO

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q301	8-729-230-49	TRANSISTOR	2SC2712-YG		
Q302	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R		
Q303	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q401	8-729-920-85	TRANSISTOR	2SD1664-QR		
Q402	8-729-106-60	TRANSISTOR	2SB1115A-YQ		
Q403	8-729-421-22	TRANSISTOR	UN2211		
		< RESISTOR >			
R101	1-216-073-00	METAL CHIP	10K	5%	1/10W
R102	1-216-833-11	METAL CHIP	10K	5%	1/16W
R104	1-216-049-11	RES-CHIP	1K	5%	1/10W
R201	1-216-073-00	METAL CHIP	10K	5%	1/10W
R202	1-216-049-11	RES-CHIP	1K	5%	1/10W
R301	1-216-809-11	METAL CHIP	100	5%	1/16W
R302	1-216-809-11	METAL CHIP	100	5%	1/16W
R303	1-216-809-11	METAL CHIP	100	5%	1/16W
R304	1-216-809-11	METAL CHIP	100	5%	1/16W
R305	1-216-809-11	METAL CHIP	100	5%	1/16W
R306	1-216-809-11	METAL CHIP	100	5%	1/16W
R307	1-216-809-11	METAL CHIP	100	5%	1/16W
R308	1-216-809-11	METAL CHIP	100	5%	1/16W
R310	1-216-821-11	METAL CHIP	1K	5%	1/16W
R312	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R316	1-216-821-11	METAL CHIP	1K	5%	1/16W
R317	1-216-821-11	METAL CHIP	1K	5%	1/16W
R318	1-216-833-11	METAL CHIP	10K	5%	1/16W
R319	1-216-845-11	METAL CHIP	100K	5%	1/16W
R320	1-216-855-11	METAL CHIP	680K	5%	1/16W
R324	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R325	1-216-821-11	METAL CHIP	1K	5%	1/16W
R327	1-216-821-11	METAL CHIP	1K	5%	1/16W
R328	1-216-811-11	METAL CHIP	150	5%	1/16W
R329	1-216-819-11	METAL CHIP	680	5%	1/16W
R330	1-216-853-11	METAL CHIP	470K	5%	1/16W
R331	1-216-809-11	METAL CHIP	100	5%	1/16W
R332	1-216-809-11	METAL CHIP	100	5%	1/16W
R333	1-216-819-11	METAL CHIP	680	5%	1/16W
R334	1-216-809-11	METAL CHIP	100	5%	1/16W
R335	1-216-815-11	METAL CHIP	330	5%	1/16W
R336	1-216-853-11	METAL CHIP	470K	5%	1/16W
R337	1-216-853-11	METAL CHIP	470K	5%	1/16W
R338	1-216-994-11	RES-CHIP	13K	5%	1/16W
R340	1-218-739-11	RES-CHIP	91K	5%	1/16W
R342	1-216-994-11	RES-CHIP	13K	5%	1/16W
R344	1-216-994-11	RES-CHIP	13K	5%	1/16W
R346	1-216-842-11	METAL CHIP	56K	5%	1/16W
R348	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R349	1-216-025-11	RES-CHIP	100	5%	1/10W
R350	1-216-797-11	METAL CHIP	10	5%	1/16W
R351	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R352	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R353	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R354	1-216-833-11	METAL CHIP	10K	5%	1/16W
R355	1-216-833-11	METAL CHIP	10K	5%	1/16W
R356	1-216-833-11	METAL CHIP	10K	5%	1/16W
R357	1-216-017-00	RES-CHIP	47	5%	1/10W

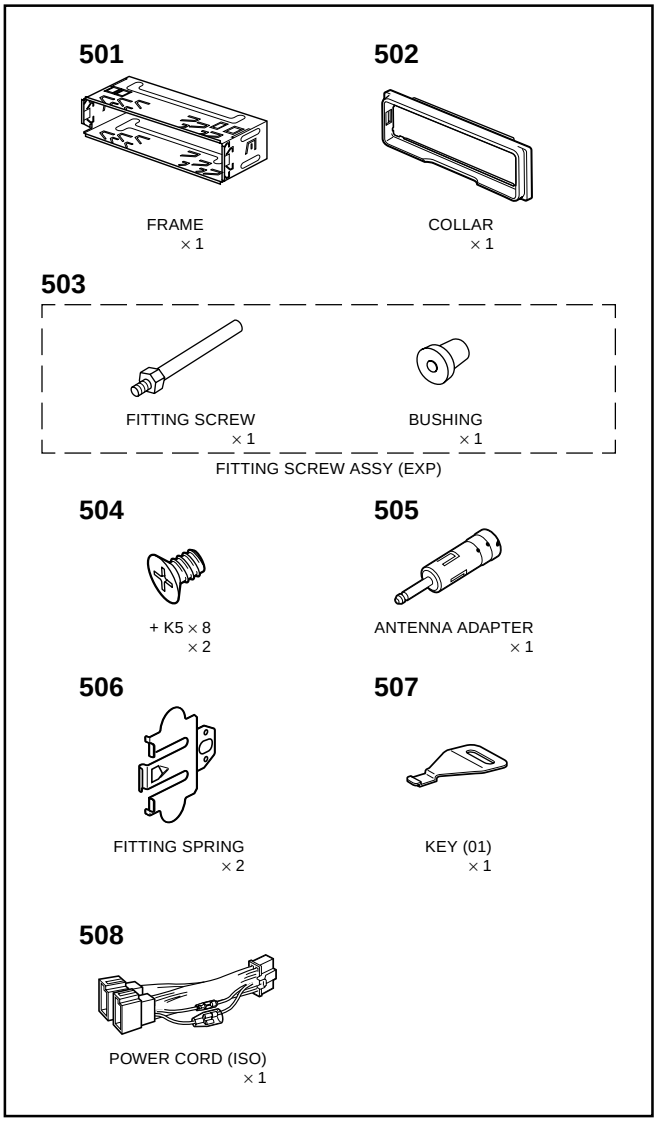
Ref. No.	Part No.	Description			Remark
R359	1-216-797-11	METAL CHIP	10	5%	1/16W
R360	1-216-864-11	SHORT	0		
R361	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R362	1-216-811-11	METAL CHIP	150	5%	1/16W
R365	1-216-864-11	SHORT	0		
R367	1-216-864-11	SHORT	0		
R401	1-216-073-00	METAL CHIP	10K	5%	1/10W
R402	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R403	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R404	1-216-809-11	METAL CHIP	100	5%	1/16W
R405	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R406	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R407	1-216-845-11	METAL CHIP	100K	5%	1/16W
R501	1-216-821-11	METAL CHIP	1K	5%	1/16W
R502	1-216-821-11	METAL CHIP	1K	5%	1/16W
R503	1-216-821-11	METAL CHIP	1K	5%	1/16W
R504	1-216-821-11	METAL CHIP	1K	5%	1/16W
R505	1-216-821-11	METAL CHIP	1K	5%	1/16W
R506	1-216-845-11	METAL CHIP	100K	5%	1/16W
R507	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R510	1-216-864-11	SHORT	0		
R511	1-216-847-11	METAL CHIP	150K	5%	1/16W
R512	1-216-845-11	METAL CHIP	100K	5%	1/16W
R516	1-216-809-11	METAL CHIP	100	5%	1/16W
R517	1-216-809-11	METAL CHIP	100	5%	1/16W
R518	1-216-809-11	METAL CHIP	100	5%	1/16W
R519	1-216-809-11	METAL CHIP	100	5%	1/16W
R520	1-216-809-11	METAL CHIP	100	5%	1/16W
R521	1-216-809-11	METAL CHIP	100	5%	1/16W
R522	1-216-821-11	METAL CHIP	1K	5%	1/16W
R523	1-216-821-11	METAL CHIP	1K	5%	1/16W
R524	1-216-821-11	METAL CHIP	1K	5%	1/16W
R525	1-216-845-11	METAL CHIP	100K	5%	1/16W
R526	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R527	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R528	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R529	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R530	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R531	1-216-845-11	METAL CHIP	100K	5%	1/16W
R532	1-216-809-11	METAL CHIP	100	5%	1/16W
R533	1-216-845-11	METAL CHIP	100K	5%	1/16W
R534	1-216-845-11	METAL CHIP	100K	5%	1/16W
R535	1-216-845-11	METAL CHIP	100K	5%	1/16W
R537	1-216-809-11	METAL CHIP	100	5%	1/16W
R538	1-216-845-11	METAL CHIP	100K	5%	1/16W
R539	1-216-845-11	METAL CHIP	100K	5%	1/16W
R540	1-216-845-11	METAL CHIP	100K	5%	1/16W
R542	1-216-845-11	METAL CHIP	100K	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
RB503	1-233-412-11	RES, CHIP NETWORK 1K (3216)			
		< THERMISTOR >			
TH501	1-810-421-11	THERMISTOR NTH5G36B103K01TE			

Ref. No.	Part No.	Description			Remark
		< VIBRATOR >			
X301	1-795-144-21	OSCILLATOR, CERAMIC (45MHz)			
X501	1-760-365-11	VIBRATOR, CERAMIC (10MHz)			
**********					
	1-681-374-11	SUB MD BOARD			
		**********			
	1-783-268-11	CABLE, FLAT			
		< CAPACITOR >			
C902	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C903	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C905	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C906	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C907	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C908	1-164-388-11	CERAMIC CHIP	270PF	5%	50V
C909	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C910	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
		< DIODE >			
D901	8-719-988-61	DIODE 1SS355TE-17			
D902	8-719-017-95	DIODE KDZ18V			
D903	8-719-072-57	LED CL-170UB-X-T			(DISC SLOT ILLUMINATION)
D906	8-719-422-41	DIODE MA8051-L-TX			
D907	8-719-977-12	DIODE MA8068-M-TX			
D908	8-719-083-14	DIODE RRX9000-0501			(REMOTE CONTROL RECEIVER)
		< FERRITE BEAD >			
FB903	1-500-329-21	FERRITE	0uH		
		< IC >			
IC901	8-759-830-18	IC RRX9000-0601#1			
		< TRANSISTOR >			
Q901	8-729-216-22	TRANSISTOR	2SA1037K-T-146-S		
Q902	8-729-038-67	TRANSISTOR	KRC102S		
		< RESISTOR >			
R901	1-216-833-11	METAL CHIP	10K	5%	1/16W
R902	1-216-845-11	METAL CHIP	100K	5%	1/16W
R903	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R904	1-216-035-00	METAL CHIP	270	5%	1/10W
R906	1-216-811-11	METAL CHIP	150	5%	1/16W
R907	1-216-864-11	SHORT	0		
R908	1-216-850-11	METAL CHIP	270K	5%	1/16W
R909	1-216-846-11	METAL CHIP	120K	5%	1/16W
		< SWITCH >			
SW901	1-692-135-21	SWITCH, KEY BOARD (RESET)			
SW903	1-771-937-21	SWITCH, DETECTION (DISC INSERT DETECT)			
**********					

Ref. No.	Part No.	Description	Remark
*	1-681-375-11	SW BOARD	
		*********	
SW1001	1-771-937-21	SWITCH, DETECTION	(FRONT PANEL OPEN/CLOSE DETEDT)
SW1002	1-529-566-31	SWITCH, PUSH (1 KEY)	(FRONT PANEL DETACH POSITION DETECT)
**********			
		MISCELLANEOUS	
		**********	
6	1-681-390-11	FLEXIBLE BOARD	
13	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	
63	1-694-806-11	CONDUCTIVE BOARD, CONNECTION	
166	1-777-246-41	CORD (WITH CONNECTOR) (ANT)	
167	1-790-375-21	CORD (WITH CONNECTOR) (SUB OUT)	
353	1-757-311-11	CABLE, FLEXIBLE FLAT (11 CORE)	
⚠365	8-583-065-03	OPTICAL PICK-UP KMS-241C/J1RP	
F101	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A)	
LCD60	1-804-348-11	DISPLAY PANEL, LIQUID CRYSTAL	
M601	X-3378-769-1	MOTOR ASSY (SERVICE)	(FRONT PANEL OPEN/CLOSE)
M901	A-3301-407-A	MOTOR ASSY, SP (SPINDLE)	
M902	A-3291-190-A	MOTOR ASSY, SL (SLED)	
M903	X-3379-451-1	MOTOR ASSY, LO (LOADING)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-09	SCREW +PTT 2.6X4 (S)	
#3	7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT	
#4	7-627-552-88	SCREW, PRECISION +P 1.7X2.2	
#5	7-627-553-28	SCREW, PRECISION +P 2X2.5	
#6	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#7	7-621-255-25	SCREW +P 2X4	
#11	7-685-851-04	SCREW +BVTT 2X4 (S)	
#12	7-624-102-04	STOP RING 1.5, TYPE-E	
#13	7-627-852-37	PRECISION SCREW +P 1.7X1.8 TYPE3	
#14	7-621-772-08	SCREW +B 2X3	
#15	7-621-555-10	SCREW +K 2X3	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-476-546-11	WIRELESS REMOTE COMMANDER (RM-X111)	
	3-230-549-01	HOLDER, BATTERY (for RM-X111)	
	3-230-448-11	MANUAL, INSTRUCTION (ENGLISH, GERMAN, FRENCH, ITALIAN, DUTCH)	
	3-230-448-21	MANUAL, INSTRUCTION (ENGLISH, SPANISH, SWEDISH, PORTUGUESE, GREEK, RUSSIAN)	
	3-230-449-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, GERMAN, FRENCH, ITALIAN, DUTCH)	
	3-230-449-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, SWEDISH, PORTUGUESE, GREEK, RUSSIAN)	
	X-3378-390-1	CASE ASSY (for FRONT PANEL)	
**********			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**************************************	
501	3-014-370-21	FRAME, FITTING	
502	3-230-445-01	COLLAR	
503	X-3366-405-1	SCREW ASSY (EXP), FITTING	
504	3-934-325-01	SCREW (+K 5X8 TP)	
505	1-465-459-21	ADAPTER, ANTENNA	
506	3-030-929-01	SPRING, FITTING	
507	3-231-993-01	KEY (01)	
508	1-776-527-71	CORD (WITH CONNECTOR) (ISO) (POWER)	



MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2001.03	New